

United States Environmental Protection Agency
Region 10, Office of Air, Waste and Toxics
AWT-107
1200 Sixth Avenue, Suite 900
Seattle, Washington 98101-3140

Permit Number: R10T5070100
Issued: July 30, 2014
Effective: August 30, 2014
Expiration: July 30, 2019
Replaces: R10T5-ID-00-02
AFS Plant I.D. Number: 16-061-00002

Title V Air Quality Operating Permit

Permit Renewal No. 1

In accordance with the provisions of Title V of the Clean Air Act (42 U.S.C. 7401 *et seq.*), 40 CFR Part 71 and other applicable rules and regulations,

Empire Lumber Company d.b.a. Kamiah Mills

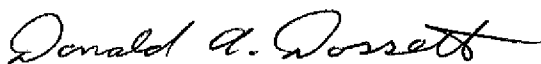
is authorized to operate air emission units and to conduct other air pollutant emitting activities in accordance with the conditions listed in this permit. This source is authorized to operate in the following location:

Location: Nez Perce Reservation
Intersection of State Highway No. 12 and Railroad Street
Kamiah, Idaho
Latitude: 46.2265, Longitude: 116.0184

Responsible Official: David A. Klaue
President
Empire Lumber Company d.b.a. Kamiah Mills
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Spokane, Washington 99211-1988
Phone: 509.534.0266, Fax: 509.534.0393
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Company Contact: Mike Steiger
Plant Supervisor
Empire Lumber Company d.b.a. Kamiah Mills
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Kamiah, Idaho 83536-0638
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The United States Environmental Protection Agency (EPA) has also developed a statement of basis that describes the bases for conditions contained in this permit.



Donald A. Dossett, P.E., Manager
Air Permits and Diesel Unit
Office of Air, Waste and Toxics
U.S. EPA, Region 10



Date

Table of Contents

1. Source Information and Emission Units	4
2. Standard Terms and Conditions.....	5
Compliance with the Permit	5
Permit Shield	5
Other Credible Evidence	6
Emergency Provisions	6
Permit Actions	7
Permit Expiration and Renewal	7
Emissions Trading and Operational Flexibility	8
Severability	8
Property Rights	8
3. General Requirements	8
General Compliance Schedule	8
Inspection and Entry	8
Open Burning Restrictions	9
Visible Emissions Limits	10
Fugitive Particulate Matter Requirements and Recordkeeping	11
Other Work Practice Requirements and Recordkeeping	12
General Testing and Associated Recordkeeping and Reporting	13
General Recordkeeping	15
General Reporting	15
Part 71 Emission and Fee Reporting	16
Annual Registration	18
Periodic and Deviation Reporting	18
Annual Compliance Certification	20
Document Certification	20
Permit Renewal	20
4. Facility-Specific Requirements.....	21
Fees and Emission Reports Due Date	21
Fuel Sulfur Limits	21
Fuel Sulfur Monitoring and Recordkeeping	21
NESHAP Subpart JJJJJ Work Practice and Emission Reduction Measures	22
NESHAP Subpart JJJJJ Monitoring and Recordkeeping Requirements	24
NESHAP Subpart JJJJJ Reporting Requirements	25

Table of Contents

Monitoring for PSD Modifications to the Facility	27
Reporting for PSD Modifications to the Facility.....	27
5. Unit-Specific Requirements – BLR1 (Biomass Gasifier and Boiler)	28
BLR1 Emission Limits and Work Practice Requirements	28
BLR1 Testing Requirements	29
BLR1 Monitoring and Recordkeeping Requirements	29
6. Unit-Specific Requirements – KLN (Lumber Drying Kilns).....	31
7. Unit-Specific Requirements – CYC (Wood Residue Cyclones and Target Boxes) P12, P13 and P34	31
8. Unit-Specific Requirements – CYC (Wood Residue Cyclones and Target Boxes) P8, P9, P10, P11, P18, P19 and P20.....	31
9. Unit-Specific Requirements – MNFA (Miscellaneous Non-Fugitive Activities)	32

1. Source Information and Emission Units

The Empire Lumber Company d.b.a. Kamiah Mills (ELC or permittee) facility is a planer mill that produces dry dimensional lumber from rough green lumber. The emission units are listed in Table 1.

Table 1: Emission Units (EU) & Control Devices

EU ID	Emission Unit Description	Control Device ¹
BLR1	<p><i>Biomass Gasifier and Boiler.</i> 29.9 MMBtu/hr heat input capacity steam generating unit consisting of a Converta Kiln, Inc. biomass gasifier and a Superior Boiler Works, Inc. Mohawk Scotch Marine fire-tube boiler. The gasifier produces gas from biomass, and the boiler combusts the produced gas. A pipe conveys the gas from the gasifier to the boiler where it is introduced through a burner. Maximum steam production of 20,700 lb/hr generating 100 psi saturated steam. Installed November 1999. Boiler exhaust is routed to a multiclone and exhausted to the atmosphere via an induced draft fan. On occasion, the gas produced by the gasifier is diverted away from boiler (and multiclone) and released directly to atmosphere via a pressure relief stack as necessary to maintain safe operation.</p> <p>In the permit and the statement of basis, use of the term “boiler” refers to the boiler section of this emission unit. Use of the term “gasifier” refers to the gasifier section of this emission unit. Use of the term “BLR1” refers to the single emission unit consisting of both the gasifier and boiler.</p>	<p>Multiclone manufactured by Boiler & Steam Systems, LLC. Model: MC-60-UP 46-7-7-4.0. Installed June 6, 2006.</p> <p>This multiclone replaced multiclone installed November 1999.</p>
KLN	<p><i>Lumber Drying Kilns.</i> Five 84-foot double-track indirectly heated Wellons lumber drying kilns. Kilns P14, P15 and P16 were installed circa Fall 2005 to Spring 2006, and each has 64 dry bulbs and 2 wet bulbs. Kilns P31 and P32 began operating April 23, 2012; and each has 48 dry bulbs and 2 wet bulbs. The facility’s annual lumber drying capacity is limited to around 120,000 thousand board feet (mbf) given the upstream steam generating capacity and plumbing. These two factors prevent the facility from drying lumber at temperatures exceeding 200°F.</p>	None
CYC	<p><i>Wood Residue Cyclones and Target Boxes.</i> Nine cyclones (P8, P9, P10, P11, P12, P13, P18, P19 and P34) and one target box (P20) employed to capture wood residue and deposit into storage structures for later sale and distribution off-site or consumption by boiler on-site. The ten capture devices are process equipment and not air pollution control devices (APCD).²</p>	None

EU ID	Emission Unit Description	Control Device ¹
MNFA	<i>Miscellaneous Non-Fugitive Activities.</i> Planing (P1 and P2), hogging (P6), sawing (P3 and P4), mechanical transfer of wood residue into ST3 Fuel House from Cyclones P34, P9 and P11 (TR8 – 10), and mechanical transfer of ash from BLR1 multiclone into hopper (TR-11). ST3 is not considered a building given that it is not entirely enclosed.	Inside building – P1, P2, P3, P4 and P6.
MFA	<i>Miscellaneous Fugitive Activities.</i> Hogging (P17A, P17B, P21 and P33), sawing (P7) and various mechanical transfers of wood residue (TR1 – 7).	None
PT	<i>Plant Traffic.</i> Traffic generating fugitive dust emissions as mobile sources travel along paved and unpaved roads.	Watering and/or other dust suppressant
PLSV	<i>Petroleum Liquids Storage Vessels.</i> Five storage vessels containing the following liquids: gasoline, diesel, parts washers, propane and lube oil.	None

¹ The multiclone is required to be used by this permit.

² See November 27, 1995 letter from EPA's David Solomon to Intel's Timothy J. Mohin. Although CYC is considered process equipment (as opposed to APCD) for the purpose of calculating potential emissions, CYC is not considered a "process source" in the context of the Federal Air Rules for Reservations (FARR) as CYC does not cause a change in material by either chemical or physical means. See definition of "process source" at 40 CFR § 49.123.

2. Standard Terms and Conditions

- 2.1. Terms not otherwise defined in this permit have the meaning assigned to them in the referenced regulations. The language of the cited regulation takes precedence over paraphrasing except the text of terms specified pursuant to any of the following sections is directly enforceable: section 304(f)(4) of the Federal Clean Air Act (CAA), 40 CFR §§ 71.6(a)(3)(i)(B) and (C), 71.6(a)(3)(ii), and 71.6(b), or any other term specifically identified as directly enforceable.

Compliance with the Permit

- 2.2. The permittee must comply with all conditions of this Part 71 permit. All terms and conditions of this permit are enforceable by EPA and citizens under the Clean Air Act. Any permit noncompliance constitutes a violation of the Clean Air Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. [40 CFR § 71.6(a)(6)(i)]
- 2.3. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. [40 CFR § 71.6(a)(6)(ii)]

Permit Shield

- 2.4. Compliance with the terms and conditions of this permit shall be deemed compliance with the applicable requirements specifically listed in this permit as of the date of permit issuance. [40 CFR § 71.6(f)(1)]

- 2.5. Nothing in this permit shall alter or affect the following:
- 2.5.1. The provisions of section 303 of the Clean Air Act (emergency orders), including the authority of EPA under that section;
 - 2.5.2. The liability of a permittee for any violation of applicable requirements prior to or at the time of permit issuance;
 - 2.5.3. The applicable requirements of the acid rain program, consistent with section 408(a) of the Clean Air Act; or
 - 2.5.4. The ability of EPA to obtain information under section 114 of the Clean Air Act.

[40 CFR § 71.6(f)(3)]

Other Credible Evidence

- 2.6. For the purpose of submitting compliance certifications in accordance with Condition 3.49 of this permit, or establishing whether or not a person has violated or is in violation of any requirement of this permit, nothing shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed.

[Section 113(a) and 113(e)(1) of the CAA, 40 CFR §§ 51.212, 52.12, 52.33, 60.11(g) and 61.12]

Emergency Provisions

- 2.7. In addition to any emergency or upset provision contained in any applicable requirement, the permittee may seek to establish that noncompliance with a technology-based emission limitation under this permit was due to an emergency. To do so, the permittee shall demonstrate the affirmative defense of emergency through properly signed, contemporaneous operating logs, or other relevant evidence that:
- 2.7.1. An emergency occurred and that the permittee can identify the cause(s) of the emergency;
 - 2.7.2. The permitted facility was at the time being properly operated;
 - 2.7.3. During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards, or other requirements in this permit; and
 - 2.7.4. The permittee submitted notice of the emergency to EPA within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken. This notice fulfills the requirements of Condition 3.48 of this permit, concerning prompt notification of deviations.

[40 CFR §§ 71.6(g)(2), (3) and (5)]

- 2.8. In any enforcement proceeding, the permittee attempting to establish the occurrence of an emergency has the burden of proof. [40 CFR § 71.6(g)(4)]
- 2.9. An “emergency” means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation, or operator error. [40 CFR § 71.6(g)(1)]

Permit Actions

- 2.10. This permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. [40 CFR § 71.6(a)(6)(iii)]
- 2.11. The permit may be reopened by EPA and the permit revised prior to expiration under any of the circumstances described in 40 CFR § 71.7(f). [40 CFR § 71.7(f)]

Permit Expiration and Renewal

- 2.12. This permit shall expire on the expiration date on page one of this permit or on an earlier date if the source is issued a Part 70 or Part 71 permit by a permitting authority under an EPA approved or delegated permit program. [40 CFR § 71.6(a)(11)]
- 2.13. Expiration of this permit terminates the permittee's right to operate unless a timely and complete permit renewal application has been submitted at least six months, but not more than 18 months, prior to the date of expiration of this permit. [40 CFR §§ 71.5(a)(1)(iii), 71.7(b) and 71.7(c)(1)(ii)]
- 2.14. If the permittee submits a timely and complete permit application for renewal, consistent with 40 CFR § 71.5(a)(2), but EPA has failed to issue or deny the renewal permit, then all the terms and conditions of the permit, including any permit shield granted pursuant to 40 CFR § 71.6(f) shall remain in effect until the renewal permit has been issued or denied. This permit shield shall cease to apply if, subsequent to the completeness determination, the permittee fails to submit by the deadline specified in writing by EPA any additional information identified as being needed to process the application. [40 CFR §§ 71.7(c)(3) and 71.7(b)]

Off-Permit Changes

- 2.15. The permittee is allowed to make certain changes without a permit revision, provided that the following requirements are met:
- 2.15.1. Each change is not addressed or prohibited by this permit;
 - 2.15.2. Each change meets all applicable requirements and does not violate any existing permit term or condition;
 - 2.15.3. The changes are not changes subject to any requirement of 40 CFR Parts 72 through 78 or modifications under any provision of Title I of the Clean Air Act;
 - 2.15.4. The permittee provides contemporaneous written notice to EPA of each change, except for changes that qualify as insignificant activities under 40 CFR § 71.5(c)(11), that describes each change, the date of the change, any change in emissions, pollutants emitted, and any applicable requirements that would apply as a result of the change;
 - 2.15.5. The changes are not covered by a permit shield provided under 40 CFR § 71.6(f) and Conditions 2.4 and 2.5 of this permit; and
 - 2.15.6. The permittee keeps a record describing all changes that result in emissions of any regulated air pollutant subject to any applicable requirement not otherwise regulated under this permit, and the emissions resulting from those changes.
- [40 CFR §71.6(a)(12)]

Emissions Trading and Operational Flexibility

- 2.16. The permittee is allowed to make a limited class of changes under section 502(b)(10) of the Clean Air Act within this permitted facility that contravene the specific terms of this permit without applying for a permit revision, provided:
- 2.16.1. The changes do not exceed the emissions allowable under this permit (whether expressed therein as a rate of emissions or in terms of total emissions);
 - 2.16.2. The changes are not modifications under any provision of Title I of the Clean Air Act;
 - 2.16.3. The changes do not violate applicable requirements;
 - 2.16.4. The changes do not contravene federally enforceable permit terms and conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements;
 - 2.16.5. The permittee sends a notice to EPA, at least 7 days in advance of any change made under this provision, that describes the change, when it will occur and any change in emissions and identifies any permit terms or conditions made inapplicable as a result of the change and the permittee attaches each notice to its copy this permit; and
 - 2.16.6. The changes are not covered by a permit shield provided under 40 CFR § 71.6(f) and Conditions 2.4 and 2.5 of this permit.
- [40 CFR § 71.6(a)(13)(i)]
- 2.17. No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit. [40 CFR § 71.6(a)(8)]

Severability

- 2.18. The provisions of this permit are severable, and in the event of any challenge to any portion of this permit, or if any portion is held invalid, the remaining permit conditions shall remain valid and in force. [40 CFR §71.6(a)(5)]

Property Rights

- 2.19. This permit does not convey any property rights of any sort, or any exclusive privilege. [40 CFR §71.6(a)(6)(iv)]

3. General Requirements

General Compliance Schedule

- 3.1. For applicable requirements with which the source is in compliance, the permittee will continue to comply with such requirements. [40 CFR §§ 71.6(c)(3) and 71.5(c)(8)(iii)(A)]
- 3.2. For applicable requirements that will become effective during the permit term, the permittee shall meet such requirements on a timely basis. [40 CFR §§ 71.6(c)(3) and 71.5(c)(8)(iii)(B)]

Inspection and Entry

- 3.3. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow EPA or an authorized representative to perform the following:

- 3.3.1. Enter upon the permittee's premises where a Part 71 source is located or emissions-related activity is conducted, or where records must be kept under the conditions of the permit;
- 3.3.2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;
- 3.3.3. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
- 3.3.4. As authorized by the Clean Air Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

[40 CFR § 71.6(c)(2)]

Open Burning Restrictions

- 3.4. Except as exempted in 40 CFR § 49.131(c), the permittee shall not openly burn, or allow the open burning of, the following materials:
 - 3.4.1. Garbage;
 - 3.4.2. Dead animals or parts of dead animals;
 - 3.4.3. Junked motor vehicles or any materials resulting from a salvage operation;
 - 3.4.4. Tires or rubber materials or products;
 - 3.4.5. Plastics, plastic products, or styrofoam;
 - 3.4.6. Asphalt or composition roofing, or any other asphaltic material or product;
 - 3.4.7. Tar, tarpaper, petroleum products, or paints;
 - 3.4.8. Paper, paper products, or cardboard other than what is necessary to start a fire or that is generated at single-family residences or residential buildings with four or fewer dwelling units and is burned at the residential site;
 - 3.4.9. Lumber or timbers treated with preservatives;
 - 3.4.10. Construction debris or demolition waste;
 - 3.4.11. Pesticides, herbicides, fertilizers, or other chemicals;
 - 3.4.12. Insulated wire;
 - 3.4.13. Batteries;
 - 3.4.14. Light bulbs;
 - 3.4.15. Materials containing mercury (e.g., thermometers);
 - 3.4.16. Asbestos or asbestos-containing materials;
 - 3.4.17. Pathogenic wastes;
 - 3.4.18. Hazardous wastes; or
 - 3.4.19. Any material other than natural vegetation that normally emits dense smoke or noxious fumes when burned.

[40 CFR §§ 49.131(c) and (d)(1)]

- 3.5. Open burning shall be conducted as follows:
- 3.5.1. All materials to be openly burned shall be kept as dry as possible through the use of a cover or dry storage;
 - 3.5.2. Before igniting a burn, noncombustibles shall be separated from the materials to be openly burned to the greatest extent practicable;
 - 3.5.3. Natural or artificially induced draft shall be present, including the use of blowers or air curtain incinerators where practicable;
 - 3.5.4. To the greatest extent practicable, materials to be openly burned shall be separated from the grass or peat layer; and
 - 3.5.5. A fire shall not be allowed to smolder.
- [40 CFR § 49.131(e)(1)]
- 3.6. Except for exempted fires set for cultural or traditional purposes, a person shall not initiate any open burning when:
- 3.6.1. The Regional Administrator has declared a burn ban; or
 - 3.6.2. An air stagnation advisory has been issued or an air pollution alert, warning or emergency has been declared by the Regional Administrator.
- [40 CFR §§ 49.131(d)(2), (d)(3) and (e)(2), and 49.137(c)(4)(i)]
- 3.7. Except for exempted fires set for cultural or traditional purposes, any person conducting open burning when such an advisory is issued or declaration is made shall either immediately extinguish the fire, or immediately withhold additional material such that the fire burns down.
- [40 CFR §§ 49.131(e)(3) and 49.137(c)(4)(ii)]
- 3.8. Nothing in this section exempts or excuses any person from complying with applicable laws and ordinances of local fire departments and other governmental jurisdictions.
- [40 CFR §49.131(d)(4)]

Visible Emissions Limits

- 3.9. Except as provided for in Conditions 3.10 and 3.11, the visible emissions from any air pollution source that emits, or could emit, particulate matter or other visible air pollutants shall not exceed 20% opacity, averaged over any consecutive six-minute period. Compliance with this emission limit is determined as follows:
- 3.9.1. Using EPA Reference Method 9 found in Appendix A of 40 CFR part 60. A single observer is allowed to determine the opacity of emissions for up to three emission points within the same 15-second interval if the following conditions are satisfied:
 - 3.9.1.1 All emission points are within a 70-degree viewing angle in front of the observer such that the proper sun position can be maintained for all points; and
 - 3.9.1.2 All opacity readings for all emission points within all 15-second intervals are less than 15% for the duration of the six-minute observation period.
 - 3.9.2. Alternatively, using a continuous opacity monitoring system that complies with Performance Specification 1 found in Appendix B of 40 CFR part 60.
- [40 CFR §§ 49.124(d)(1) and (e), 71.6(c)(1)]

- 3.10. The requirements of Condition 3.9 do not apply to open burning, agricultural activities, forestry and silvicultural activities, non-commercial smoke houses, sweat houses or lodges, smudge pots, furnaces and boilers used exclusively to heat residential buildings with four or fewer dwelling units, or emissions from fuel combustion in mobile sources. [40 CFR § 49.124(c)]
- 3.11. Exceptions to the visible emission limit in Condition 3.9 include:
- 3.11.1. The visible emissions from an air pollution source may exceed the 20% opacity limit if the owner or operator of the air pollution source demonstrates to the Regional Administrator's satisfaction that the presence of uncombined water, such as steam, is the only reason for the failure of an air pollution source to meet the 20% opacity limit.
- 3.11.2. The visible emissions from an oil-fired boiler or solid fuel-fired boiler that continuously measures opacity with a continuous opacity monitoring system (COMS) may exceed the 20% opacity limit during start-up, soot blowing, and grate cleaning for a single period of up to 15 consecutive minutes in any eight consecutive hours, but must not exceed 60% opacity at any time.

[40 CFR §§ 49.124(d)(2) and (3)]

Fugitive Particulate Matter Requirements and Recordkeeping

- 3.12. Except as provided for in Condition 3.17, the permittee shall take all reasonable precautions to prevent fugitive particulate matter emissions and shall maintain and operate all pollutant-emitting activities to minimize fugitive particulate matter emissions. Reasonable precautions include, but are not limited to the following:
- 3.12.1. Use, where possible, of water or chemicals for control of dust in the demolition of buildings or structures, construction operations, grading of roads, or clearing of land;
- 3.12.2. Application of asphalt, oil (but not used oil), water, or other suitable chemicals on unpaved roads, materials stockpiles, and other surfaces that can create airborne dust;
- 3.12.3. Full or partial enclosure of materials stockpiles in cases where application of oil, water, or chemicals is not sufficient or appropriate to prevent particulate matter from becoming airborne;
- 3.12.4. Implementation of good housekeeping practices to avoid or minimize the accumulation of dusty materials that have the potential to become airborne, and the prompt cleanup of spilled or accumulated materials;
- 3.12.5. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials;
- 3.12.6. Adequate containment during sandblasting or other similar operations;
- 3.12.7. Covering, at all times when in motion, open bodied trucks transporting materials likely to become airborne; and
- 3.12.8. The prompt removal from paved streets of earth or other material that does or may become airborne.

[40 CFR §§ 49.126(d)(1) and (2)]

- 3.13. Once each calendar year, during typical operating conditions and meteorological conditions conducive to producing fugitive dust, the permittee shall survey the facility to determine the sources of fugitive particulate matter emissions. For new sources or new operations, a survey shall be conducted within 30 days after commencing operation.

- 3.13.1. The permittee shall record the results of the survey, including the date and time of the survey and identification of any sources of fugitive particulate matter emissions found; and
- 3.13.2. If sources of fugitive particulate matter emissions are present, the permittee shall determine the reasonable precautions that will be taken to prevent fugitive particulate matter emissions.

[40 CFR §§ 49.126(e)(1)(i) and (ii)]

- 3.14. The permittee shall prepare, and update as necessary following each survey, a written plan that specifies the reasonable precautions that will be taken and the procedures to be followed to prevent fugitive particulate matter emissions, including appropriate monitoring and recordkeeping.

- 3.14.1. For construction or demolition activities, a written plan shall be prepared prior to commencing construction or demolition.

[40 CFR §§ 49.126(e)(1)(iii) and (iv)]

- 3.15. The permittee shall implement the written plan, and maintain and operate all sources to minimize fugitive particulate matter emissions. [40 CFR §§ 49.126(e)(1)(iii) and (iv)]

- 3.16. Efforts to comply with this section cannot be used as a reason for not complying with other applicable laws and ordinances. [40 CFR § 49.126(e)(3)]

- 3.17. The requirements of Conditions 3.12 through 3.16 do not apply to open burning, agricultural activities, forestry and silvicultural activities, sweat houses or lodges, non-commercial smoke houses, or activities associated with single-family residences or residential buildings with four or fewer dwelling units. [40 CFR § 49.126(c)]

Other Work Practice Requirements and Recordkeeping

- 3.18. The permittee shall comply with the requirements of the Chemical Accident Prevention Provisions at 40 CFR Part 68 no later than the latest of the following dates:

- 3.18.1. Three years after the date on which a regulated substance, present above the threshold quantity in a process, is first listed under 40 CFR § 68.130; or
- 3.18.2. The date on which a regulated substance is first present above a threshold quantity in a process.

[40 CFR § 68.10]

- 3.19. Except as provided for motor vehicle air conditioners (MVACs) in 40 CFR Part 82, Subpart B, the permittee shall comply with the stratospheric ozone and climate protection standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F.

- 3.19.1. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR § 82.156.
- 3.19.2. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR § 82.158.
- 3.19.3. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR § 82.161.

- 3.19.4. Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with recordkeeping requirements pursuant to 40 CFR § 82.166. ("MVAC-like appliance" is defined at 40 CFR § 82.152.)
- 3.19.5. Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to 40 CFR § 82.156.
- 3.19.6. Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR § 82.166.

[40 CFR Part 82, Subpart F]

- 3.20. If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the MVAC, the permittee must comply with all the applicable requirements for stratospheric ozone and climate protection as specified in 40 CFR Part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners.

[40 CFR Part 82, Subpart B]

- 3.21. The permittee shall comply with 40 CFR Part 61, Subpart M for asbestos removal and disposal when conducting any renovation or demolition at the facility. [40 CFR Part 61, Subpart M]

General Testing and Associated Recordkeeping and Reporting

- 3.22. In addition to the specific testing requirements contained in the emission unit sections of this permit, the permittee shall comply with the generally applicable testing requirements in Conditions 3.23 through 3.30 whenever conducting a performance test required by this permit unless specifically stated otherwise in this permit. [40 CFR §§ 71.6(a)(3) and 71.6(c)(1)]
- 3.23. Test Notification. The permittee shall provide EPA at least 30 days prior notice of any performance test, except as otherwise specified in this permit, to afford EPA the opportunity to have an observer present. If after 30 days notice for an initially scheduled performance test, there is a delay in conducting the scheduled performance test, the permittee shall notify EPA as soon as possible of any delay in the original test date, either by providing at least 7 days prior notice of the rescheduled date of the performance test, or by arranging a rescheduled date with EPA by mutual agreement. [40 CFR §§ 71.6(a)(3) and 71.6(c)(1)]
- 3.24. Test Plan. The permittee shall submit to EPA a source test plan 30 days prior to any required testing. The source test plan shall include and address the following elements:
 - 3.24.1. Purpose and scope of testing;
 - 3.24.2. Source description, including a description of the operating scenarios and mode of operation during testing and including fuel sampling and analysis procedures;
 - 3.24.3. Schedule/dates of testing;
 - 3.24.4. Process data to be collected during the test and reported with the results, including source-specific data identified in the emission unit sections of this permit;
 - 3.24.5. Sampling and analysis procedures, specifically requesting approval for any proposed alternatives to the reference test methods, and addressing minimum test length (e.g., one hour, 8 hours, 24 hours, etc.) and minimum sample volume;
 - 3.24.6. Sampling location description and compliance with the reference test methods;
 - 3.24.7. Analysis procedures and laboratory identification;
 - 3.24.8. Quality assurance plan;

- 3.24.9. Calibration procedures and frequency;
- 3.24.10. Sample recovery and field documentation;
- 3.24.11. Chain of custody procedures;
- 3.24.12. Quality assurance/quality control project flow chart;
- 3.24.13. Data processing and reporting;
- 3.24.14. Description of data handling and quality control procedures; and
- 3.24.15. Report content and timing.

[40 CFR §§ 71.6(a)(3) and 71.6(c)(1)]

- 3.25. Facilities for performing and observing the emission testing shall be provided that meet the requirements of 40 CFR 60.8(e) and Reference Method 1 (40 CFR Part 60, Appendix A).
[40 CFR §§ 71.6(a)(3) and 71.6(c)(1)]
- 3.26. Unless EPA determines in writing that other operating conditions are representative of normal operations or unless specified in the emission unit sections of this permit, the source shall be operated at a capacity of at least 90% but no more than 100% of maximum during all tests.
[40 CFR §§ 71.6(a)(3) and 71.6(c)(1)]
- 3.27. Only regular operating staff may adjust the processes or emission control devices during or within two hours prior to the start of a source test. Any operating adjustments made during a source test, that are a result of consultation during the tests with source testing personnel, equipment vendors, or consultants, may render the source test invalid. [40 CFR §§ 71.6(a)(3) and 71.6(c)(1)]
- 3.28. Each source test shall follow the reference test methods specified by this permit and consist of at least three (3) valid test runs.
 - 3.28.1. If the reference test method yields measured pollutant concentration values at an oxygen concentration other than specified in the emission standard, the permittee shall correct the measured pollutant concentration to the oxygen concentration specified in the emission standard by using the following equation:

$$PC_X = PC_M \times \frac{(20.9 - X)}{(20.9 - Y)}$$

Where: PC_X = Pollutant concentration at X percent;
 PC_M = Pollutant concentration as measured;
 X = The oxygen concentration specified in the standard; and
 Y = The measured average volumetric oxygen concentration.

[40 CFR § 71.6(a)(3)(i)(B)]

- 3.28.2. Source test emission data shall be reported as the arithmetic average of all valid test runs and in the terms of any applicable emission limit, unless otherwise specified in the emission unit sections of this permit. [40 CFR §§ 71.6(a)(3) and 71.6(c)(1)]
- 3.29. Test Records. For the duration of each test run (unless otherwise specified), the permittee shall record the following information:
 - 3.29.1. All data which is required to be monitored during the test in the emission unit sections of this permit; and
 - 3.29.2. All continuous monitoring system data which is required to be routinely monitored in the emission unit sections of this permit for the emission unit being tested.

[40 CFR §§ 71.6(a)(3) and 71.6(c)(1)]

- 3.30. Test Reports. Emission test reports shall be submitted to EPA within 60 days of completing any emission test required by this permit along with data required to be recorded in Condition 3.29 above. [40 CFR §§ 71.6(a)(3) and 71.6(c)(1)]

General Recordkeeping

- 3.31. Monitoring Records. The permittee shall keep records of required monitoring information that include the following:
- 3.31.1. The date, place, and time of sampling or measurements;
 - 3.31.2. The date(s) analyses were performed;
 - 3.31.3. The company or entity that performed the analyses;
 - 3.31.4. The analytical techniques or methods used;
 - 3.31.5. The results of such analyses; and,
 - 3.31.6. The operating conditions as existing at the time of sampling or measurement.
- [40 CFR § 71.6(a)(3)(ii)(A)]
- 3.32. Off-Permit Change Records. The permittee shall keep a record describing all off-permit changes allowed to be made under Condition 2.15 that result in emissions of any regulated air pollutant subject to any applicable requirement not otherwise regulated under this permit, and the emissions resulting from those changes. [40 CFR § 71.6(a)(12)]
- 3.33. Open Burning Records. For any open burning allowed under Conditions 3.4 through 3.8, the permittee shall document the following:
- 3.33.1. The date that burning was initiated;
 - 3.33.2. The duration of the burn;
 - 3.33.3. The measures taken to comply with each provision of Condition 3.5; and
 - 3.33.4. The measures taken to ensure that materials prohibited in Condition 3.4 were not burned.
- [40 CFR § 71.6(a)(3)(i)(B)]
- 3.34. Fee Records. The permittee shall retain in accordance with the provisions of Condition 3.35 of this permit, all work sheets and other materials used to determine fee payments. Records shall be retained for five years following the year in which the emissions data is submitted. [40 CFR § 71.9(i)]
- 3.35. Records Retention. The permittee shall retain records of all required monitoring data and support information for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records, all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. [40 CFR §§ 71.6(a)(3)(ii)(B), 49.126(e)(1)(v) and 49.130(f)(2)]

General Reporting

- 3.36. Additional Information. The permittee shall furnish to EPA, within a reasonable time, any information that EPA may request in writing to determine whether cause exists for modifying, revoking, and reissuing, or terminating the permit, or to determine compliance with the permit. Upon request, the permittee shall also furnish to EPA copies of records that are required to be

kept pursuant to the terms of the permit, including information claimed to be confidential. Information claimed to be confidential must be accompanied by a claim of confidentiality according to the provisions of 40 CFR Part 2, Subpart B.

[40 CFR §§ 71.6(a)(6)(v) and 71.5(a)(3)]

- 3.37. Corrections. The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information. [40 CFR § 71.5(b)]
- 3.38. Off-Permit Change Report. The permittee shall provide contemporaneous written notice to EPA of each off-permit change allowed to be made under Condition 2.15, except for changes that qualify as insignificant activities under 40 CFR § 71.5(c)(11). The written notice shall describe each change, the date of the change, any change in emissions, pollutants emitted, and any applicable requirements that would apply as a result of the change; [40 CFR § 71.6(a)(12)]
- 3.39. Section 502(b)(10) Change Report. The permittee is required to send a notice to EPA at least 7 days in advance of any section 502(b)(10) change allowed to be made under Condition 2.16. The notice must describe the change, when it will occur and any change in emissions, and identify any permit terms or conditions made inapplicable as a result of the change. The permittee shall attach each notice to its copy of this permit. [40 CFR § 71.6(a)(13)(i)(A)]
- 3.40. Address. Unless otherwise specified in this permit, any documents required to be submitted under this permit, including reports, test data, monitoring data, notifications, compliance certifications, fee calculation worksheets, and applications for renewals and permit modifications shall be submitted to the EPA address below. A copy of each document submitted to EPA that does not contain confidential business information shall be sent to the Tribal address below:

Original documents go to EPA at:

Part 71 Air Quality Permits
U.S. EPA - Region 10, AWT-107
1200 Sixth Avenue, Suite 900
Seattle, WA 98101-3140

Copies go to Tribe at:

Air Quality Program Coordinator
Nez Perce Tribe – ERWM
P.O. Box 365
Lapwai, ID 83540-0365

[40 CFR §§ 71.5(d), 71.6(c)(1) and 71.9(h)(2)]

Part 71 Emission and Fee Reporting

- 3.41. Part 71 Annual Emission Report. No later than the date specified in Condition 4.1 of each year, the permittee shall submit to EPA an annual report of actual emissions for the preceding calendar year. [40 CFR § 71.9(h)(1)]
- 3.41.1. “Actual emissions” means the actual rate of emissions in tons per year of any “regulated pollutant (for fee calculation),” as defined in 40 CFR § 71.2, emitted from a Part 71 source over the preceding calendar year. Actual emissions shall be calculated using each emissions unit’s actual operating hours, production rates, in-place control equipment, and types of materials processed, stored, or combusted during the preceding calendar year. [40 CFR § 71.9(c)(6)]
- 3.41.2. Actual emissions shall be computed using methods required by the permit for determining compliance. [40 CFR § 71.9(h)(3)]
- 3.41.3. Actual emissions shall include fugitive emissions. [40 CFR § 71.9(c)(1)]
- 3.42. Part 71 Fee Calculation Worksheet. Based on the annual emission report required in Condition 3.41 and no later than the date specified in Condition 4.1 of each year, the permittee shall submit to EPA a fee calculation worksheet (blank forms provided by EPA) and a photocopy of each fee payment check (or other confirmation of actual fee paid).

[40 CFR §§ 71.9(c)(1), 71.9(e)(1) and 71.9(h)(1)]

- 3.42.1. The annual emissions fee shall be calculated by multiplying the total tons of actual emissions of each “regulated pollutant (for fee calculation),” emitted from the source by the presumptive emission fee (in dollars/ton) in effect at the time of calculation. The presumptive emission fee is revised each calendar year and is available from EPA prior to the start of each calendar year. [40 CFR § 71.9(c)(1)]
- 3.42.2. The permittee shall exclude the following emissions from the calculation of fees:
- 3.42.2.1 The amount of actual emissions of each regulated pollutant (for fee calculation) that the source emits in excess of 4,000 tons per year;
- 3.42.2.2 Actual emissions of any regulated pollutant (for fee calculation) already included in the fee calculation; and
- 3.42.2.3 The insignificant quantities of actual emissions not required to be listed or calculated in a permit application pursuant to 40 CFR § 71.5(c)(11). [40 CFR § 71.9(c)(5)]
- 3.43. Part 71 Annual Fee Payment. No later than the date specified in Condition 4.1 of each year, the permittee shall submit to EPA full payment of the annual permit fee based on the fee calculation worksheet required in Condition 3.42. [40 CFR §§ 71.9(a), 71.9(c)(1) and 71.9(h)(1)]
- 3.43.1. The fee payment and a completed fee filing form shall be sent to:
- U.S.EPA
FOIA and Miscellaneous Payments
Cincinnati Finance Center
P. O. Box 979078
St Louis, MO 63197-9000
- [40 CFR § 71.9(k)(2)]
- 3.43.2. The fee payment shall be in United States currency and shall be paid by money order, bank draft, certified check, corporate check, or electronic funds transfer payable to the order of the U.S. Environmental Protection Agency. [40 CFR § 71.9(k)(1)]
- 3.43.3. The permittee, when notified by EPA of additional amounts due, shall remit full payment within 30 days of receipt of an invoice from EPA. [40 CFR § 71.9(j)(2)]
- 3.43.4. If the permittee thinks an EPA assessed fee is in error and wishes to challenge such fee, the permittee shall provide a written explanation of the alleged error to EPA along with full payment of the EPA assessed fee. [40 CFR § 71.9(j)(3)]
- 3.43.5. Failure of the permittee to pay fees in a timely manner shall subject the permittee to assessment of penalties and interest in accordance with 40 CFR § 71.9(l). [40 CFR § 71.9(l)]
- 3.44. The annual emission report and fee calculation worksheet (and photocopy of each fee payment check), required in Conditions 3.41 and 3.42, shall be submitted to EPA at the address listed in Condition 3.40 of this permit.¹ [40 CFR § 71.9(k)(1)]

¹ The permittee should note that an annual emissions report, required at the same time as the fee calculation worksheet by 40 CFR § 71.9(h), has been incorporated into the fee calculation worksheet.

- 3.45. The annual emission report and fee calculation worksheet (and photocopy of each fee payment check), required in Conditions 3.41 and 3.42, shall be certified by a responsible official in accordance with Condition 3.50 of this permit. [40 CFR § 71.9(h)(2)]

Annual Registration

- 3.46. The permittee shall submit an annual registration report that consists of estimates of the total actual emissions from the air pollution source for the following air pollutants: PM, PM₁₀, PM_{2.5}, SO_x, NO_x, CO, VOC, lead and lead compounds, ammonia, fluorides (gaseous and particulate), sulfuric acid mist, hydrogen sulfide, total reduced sulfur (TRS), and reduced sulfur compounds, including all calculations for the estimates. Emissions shall be calculated using the actual operating hours, production rates, in-place control equipment, and types of materials processed, stored, or combusted during the preceding calendar year. [40 CFR §§ 49.138(e)(3)(xii), (e)(4) and (f)]
- 3.46.1. The emission estimates required by Condition 3.46 shall be based upon actual test data or, in the absence of such data, upon procedures acceptable to the Regional Administrator. Any emission estimates submitted to the Regional Administrator shall be verifiable using currently accepted engineering criteria. The following procedures are generally acceptable for estimating emissions from air pollution sources:
- 3.46.1.1 Source-specific emission tests;
 - 3.46.1.2 Mass balance calculations;
 - 3.46.1.3 Published, verifiable emission factors that are applicable to the source;
 - 3.46.1.4 Other engineering calculations; or
 - 3.46.1.5 Other procedures to estimate emissions specifically approved by the Regional Administrator.
- [40 CFR §§ 49.138(e)(4) and (f)]
- 3.46.2. The annual registration report shall be submitted with the annual emission report and fee calculation worksheet required by Conditions 3.41 and 3.42 of this permit. The permittee may submit a single combined report provided that the combined report clearly identifies which emissions are the basis for the annual registration report, the part 71 annual emission report, and the part 71 fee calculation worksheet. All registration information and reports shall be submitted on forms provided by the Regional Administrator. [40 CFR §§ 49.138(d) and (f)]

Periodic and Deviation Reporting

- 3.47. Semi-Annual Monitoring Report. The permittee shall submit to EPA reports of any required monitoring for each six month reporting period from July 1 to December 31 and from January 1 to June 30. All reports shall be submitted to EPA and shall be postmarked by the 60th day following the end of the reporting period. All instances of deviations from permit requirements must be clearly identified in such reports. All required reports must be certified by a responsible official consistent with Condition 3.50. [40 CFR § 71.6(a)(3)(iii)(A)]
- 3.48. Deviation Report. The permittee shall promptly report to EPA, by telephone or facsimile, deviations from permit conditions, including those attributable to upset conditions as defined in this permit, the probable cause of such deviations, and any corrective actions or preventive measures taken. The report shall be made using the following numbers:

Telephone: (206) 553-1331
Facsimile: (206) 553-0110

3.48.1. For the purposes of Conditions 3.47 and 3.48, deviation means any situation in which an emissions unit fails to meet a permit term or condition. A deviation is not always a violation. A deviation can be determined by observation or through review of data obtained from any testing, monitoring, or record keeping required by this permit. For a situation lasting more than 24 hours, each 24-hour period is considered a separate deviation. Included in the meaning of deviation are any of the following:

- 3.48.1.1 A situation where emissions exceed an emission limitation or standard;
- 3.48.1.2 A situation where process or emissions control device parameter values indicate that an emission limitation or standard has not been met;
- 3.48.1.3 A situation in which observations or data collected demonstrate noncompliance with an emission limitation or standard or any work practice or operating condition required by the permit (including indicators of compliance revealed through parameter monitoring);
- 3.48.1.4 A situation in which any testing, monitoring, recordkeeping or reporting required by this permit is not performed or not performed as required;
- 3.48.1.5 A situation in which an exceedance or an excursion, as defined in 40 CFR Part 64, occurs; and
- 3.48.1.6 Failure to comply with a permit term that requires submittal of a report.

[40 CFR § 71.6(a)(3)(iii)(C)]

3.48.2. For the purpose of Condition 3.48 of the permit, prompt is defined as any definition of prompt or a specific time frame for reporting deviations provided in an underlying applicable requirement as identified in this permit. Where the underlying applicable requirement fails to address the time frame for reporting deviations, reports of deviations will be submitted based on the following schedule:

- 3.48.2.1 For emissions of a hazardous air pollutant or a toxic air pollutant (as identified in the applicable regulation) that continue for more than an hour in excess of permit requirements, the report must be made within 24 hours of the occurrence;
- 3.48.2.2 For emissions of any regulated pollutant excluding those listed in Condition 3.48.2.1 above, that continue for more than two hours in excess of permit requirements, the report must be made within 48 hours of the occurrence; or
- 3.48.2.3 For all other deviations from permit requirements, the report shall be submitted with the semi-annual monitoring report required in Condition 3.47.

[40 CFR § 71.6(a)(3)(iii)(B)]

3.48.3. Within 10 working days of the occurrence of a deviation as provided in Condition 3.48.2.1 or 3.48.2.2 above, the permittee shall also submit a written notice, which shall include a narrative description of the deviation and updated information as listed in Condition 3.48, to EPA, certified consistent with Condition 3.50 of this permit.

[40 CFR §§ 71.6(a)(3)(i)(B) and (iii)(B)]

Annual Compliance Certification

- 3.49. The permittee shall submit to EPA a certification of compliance with permit terms and conditions, including emission limitations, standards, or work practices, postmarked by February 28 of each year and covering the permit or permits in effect during the previous calendar year. The compliance certification shall be certified as to truth, accuracy, and completeness by a responsible official consistent with Condition 3.50 of this permit. [40 CFR § 71.6(c)(5)]

3.49.1. The annual compliance certification shall include the following:

- 3.49.1.1 The identification of each permit term or condition that is the basis of the certification;
- 3.49.1.2 The identification of the method(s) or other means used by the permittee for determining the compliance status with each term and condition during the certification period. Such methods and other means shall include, at a minimum, the methods and means required in this permit. If necessary, the permittee also shall identify any other material information that must be included in the certification to comply with section 113(c)(2) of the Clean Air Act, which prohibits knowingly making a false certification or omitting material information; and
- 3.49.1.3 The status of compliance with each term and condition of the permit for the period covered by the certification, including whether compliance during the period was continuous or intermittent. The certification shall be based on the method or means designated above. The certification shall identify each deviation and take it into account in the compliance certification. The certification shall also identify as possible exceptions to compliance any periods during which compliance is required and in which an excursion or exceedance as defined under 40 CFR Part 64 occurred.

[40 CFR § 71.6(c)(5)(iii)]

Document Certification

- 3.50. Any document required to be submitted under this permit shall be certified by a responsible official as to truth, accuracy, and completeness. Such certifications shall state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. [40 CFR §§ 71.5(d), 71.6(c)(1) and 71.9(h)(2)]

Permit Renewal

- 3.51. The permittee shall submit a timely and complete application for permit renewal at least six months, but not more than 18 months, prior to the date of expiration of this permit. [40 CFR §§ 71.5(a)(1)(iii), 71.7(b) and 71.7(c)(1)(ii)]
- 3.52. The application for renewal shall include the current permit number, a description of permit revisions and off-permit changes that occurred during the permit term and were not incorporated into the permit during the permit term, any applicable requirements that were promulgated and not incorporated into the permit during the permit term, and other information required by the application form. [40 CFR §§ 71.5(a)(2) and 71.5(c)(5)]

4. Facility-Specific Requirements

Fees and Emission Reports Due Date

- 4.1. Unless otherwise specified, fees and emission reports required by this permit are due annually on November 15. [40 CFR §§ 71.9(a) and 71.9(h)]

Fuel Sulfur Limits

- 4.2. The permittee shall not sell, distribute, use, or make available for use any solid fuel that contains more than 2.0 percent sulfur by weight. [40 CFR § 49.130(d)(7)]
- 4.2.1. Compliance with the sulfur limit is determined using ASTM method E775-87(2004). [40 CFR § 49.130(e)(3)]

Fuel Sulfur Monitoring and Recordkeeping

- 4.3. The permittee shall keep records showing that only wood is combusted in gasifiers. [40 CFR § 49.130(f)(1)(iii)]

Visible and Fugitive Emission Monitoring and Recordkeeping

- 4.4. Except as provided for in Condition 4.11, once each calendar quarter, the permittee shall visually survey each emission unit and any other pollutant emitting activity for the presence of visible emissions or fugitive emissions of particulate matter.
- 4.4.1. The observer conducting the visual survey must be trained and knowledgeable regarding the effects of background contrast, ambient lighting, observer position relative to lighting and wind, and the presence of uncombined water on the visibility of emissions (see 40 CFR part 60, Appendix A, Method 22).
- 4.4.2. For the surveys, the observer shall select a position that enables a clear view of the emission point to be surveyed, that is at least 15 feet, but not more than 0.25 miles, from the emission point, and where the sunlight is not shining directly in the observer's eyes.
- 4.4.3. The observer shall continuously watch for visible emissions from each potential emission point for at least 15 seconds.
- 4.4.4. Any observed visible emissions or fugitive emissions of particulate matter (other than uncombined water) shall be recorded as a positive reading associated with the emission unit or pollutant emitting activity.
- 4.4.5. Surveys shall be conducted while the emission unit or pollutant emitting activity is operating, and during daylight hours. [40 CFR § 71.6(a)(3)(i)(B)]
- 4.5. If the survey conducted pursuant to Condition 4.4 identifies any visible emissions or fugitive emissions of particulate matter, the permittee shall:
- 4.5.1. Immediately upon conclusion of the visual survey in Condition 4.4, investigate the source and reason for the presence of visible emissions or fugitive emissions; and
- 4.5.2. As soon as practicable, take appropriate corrective action. [40 CFR § 71.6(a)(3)(i)(B)]
- 4.6. If the corrective actions undertaken pursuant to Condition 4.5.2 do not eliminate the visible or fugitive emissions, the permittee shall within 24 hours of the visual survey in Condition 4.4

determine the opacity of the emissions in question, for a 30-minute duration, using the procedures specified in Condition 3.9.1. [40 CFR § 71.6(a)(3)(i)(B)]

- 4.7. If any 6-minute average opacity determined pursuant to Condition 4.6 or 4.8 is greater than 20%, the permittee shall determine the opacity of the emissions in question daily, for a 30-minute duration each day, using the procedures specified in Condition 3.9.1 until no 6-minute average opacity is greater than 20% for two consecutive days. [40 CFR § 71.6(a)(3)(i)(B)]
- 4.8. If the opacity determination required in Condition 4.6, or if two consecutive daily opacity determinations required by Condition 4.7, indicate no 6-minute average opacity greater than 20%, the permittee shall determine opacity of the emissions in question weekly, for a 30-minute duration each week, for three additional weeks using the procedures specified in Condition 3.9.1. [40 CFR § 71.6(a)(3)(i)(B)]
- 4.9. The permittee shall maintain records of the following:
- 4.9.1. Details of each visual survey, including date, time, observer and results for each emission unit and any other pollutant emitting activity;
 - 4.9.2. Date, time and type of any investigation conducted pursuant to Condition 4.5.1;
 - 4.9.3. Findings of the investigation, including the reasons for the presence of visible emissions or fugitive emissions of particulate matter;
 - 4.9.4. Date, time and type of corrective actions taken pursuant to Condition 4.5.2;
 - 4.9.5. Field, observation and data reduction records for any EPA Reference Method 9 determination conducted on the source of visible or fugitive emissions pursuant to Conditions 4.6 through 4.8.
- [40 CFR § 71.6(a)(3)(i)(B)]
- 4.10. Any 6-minute average opacity determined to be in excess of 20% is a deviation and subject to the provisions of Conditions 3.47 and 3.48. [40 CFR § 71.6(a)(3)(i)(B)]
- 4.11. The requirements of Conditions 4.4 through 4.10 shall not apply to emissions from BLR1 and CYC P8, P9, P10, P11, P18, P19 and P20.

[40 CFR § 71.6(a)(3)(i)(B)]

Open Burning, Agricultural Burning, Forestry and Silvicultural Burning Permits

- 4.12. The permittee shall apply for and obtain a permit for any open burning, agricultural burning, or forestry and silvicultural burning. The permittee shall submit an application to the Nez Perce Tribe for each proposed burn, and shall comply with the provisions of 40 CFR 49.132, 40 CFR 49.133 and/or 40 CFR 49.134, as applicable. [40 CFR 49.132, 40 CFR 49.133, 40 CFR 49.134]

NESHAP Subpart JJJJJJ Work Practice and Emission Reduction Measures

- 4.13. NESHAP Subpart JJJJJJ BLR1 Performance Tune-up. The permittee shall conduct a performance tune-up of BLR1 no later than March 21, 2014, and every five years thereafter subject to the following: [40 CFR §§ 63.11196(a)(1), 63.11201(b), 63.11210(c), 63.11223(a) through (c) and Table 2 to Subpart JJJJJJ of Part 63]
- 4.13.1. Each performance tune-up shall be conducted no more than 61 months after the previous tune-up. [40 CFR § 63.11223(c)]
 - 4.13.2. If BLR1 is not operating on the required date for a tune-up, the tune-up shall be conducted within 30 days of startup. [40 CFR § 63.11223(b)(7)]
 - 4.13.3. Conduct the tune-up while BLR1 is combusting biomass. [40 CFR § 63.11223(a)]

- 4.13.4. Inspect the boiler's burner, and clean or replace any components of the burner as necessary (you may delay the burner inspection until the next scheduled unit shutdown, not to exceed 72 months from the previous inspection).
[40 CFR § 63.11223(b)(1) and (c)]
- 4.13.5. Inspect the flame pattern within the boiler and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available.
[40 CFR § 63.11223(b)(2)]
- 4.13.6. Inspect the system controlling the air-to-fuel ratio and ensure that it is correctly calibrated and functioning properly. The inspection may be delayed until the next scheduled BLR1 shutdown, not to exceed 72 months from the previous inspection.
[40 CFR § 63.11223(b)(3) and (c)]
- 4.13.7. Optimize total emissions of CO. This optimization shall be consistent with the manufacturer's specifications, if available, and with any NO_x requirement to which BLR1 is subject.
[40 CFR § 63.11223(b)(4)]
- 4.14. NESHAP Subpart JJJJJ Energy Assessment for BLR1 and KLN. The permittee shall satisfy Condition 4.14.1 or 4.14.2 no later than March 21, 2014:
[40 CFR §§ 63.11196(a)(3), 63.11201(b), 63.11210(c) and Table 2 to Subpart JJJJJ of Part 63]
 - 4.14.1. Have a one-time energy assessment performed or amended in accordance with Condition 4.15 and as follows:
[40 CFR § 63.11201(b) and Table 2 to Subpart JJJJJ of Part 63]
 - 4.14.1.1 The energy assessment (and in the case of an amendment; the underlying assessment) shall be completed on or after January 1, 2008.
[40 CFR § 63.11201(b) and Table 2 to Subpart JJJJJ of Part 63]
 - 4.14.1.2 An energy assessment performed after February 1, 2013 shall be conducted by a qualified energy assessor. [Table 2 to Subpart JJJJJ of Part 63]
 - 4.14.2. Operate under an energy management program compatible with ISO 50001 that includes the affected units.
[40 CFR § 63.11201(b) and Table 2 to Subpart JJJJJ of Part 63]
- 4.15. NESHAP Subpart JJJJJ One-Time Energy Assessment Requirements for BLR1 and KLN. If the permittee elects to have a one-time energy assessment performed or amended to comply with Condition 4.14, the assessment (or amended assessment) shall include the following:
[40 CFR § 63.11201(b), 40 CFR § 63.11237 and Table 2 to Subpart JJJJJ of Part 63]
 - 4.15.1. An on-site evaluation up to 8 technical labor hours in duration (but may be longer at the discretion of the permittee) that includes the following: [40 CFR § 63.11237]
 - 4.15.1.1 A visual inspection of BLR1 system; [Table 2 to Subpart JJJJJ of Part 63]
 - 4.15.1.2 An evaluation of operating characteristics of BLR1 system, specifications of energy use systems, operating and maintenance procedures, and unusual operating constraints; [Table 2 to Subpart JJJJJ of Part 63]
 - 4.15.1.3 An inventory of major energy use systems consuming energy from BLR1 and which are under control of the permittee²;

² As discussed in Section 4.3 of the accompanying Statement of Basis, the lumber drying energy use system for which ELC is required to conduct an energy assessment consists of kilns P14, P15, P16, P31 and P32. Collectively, this group is designated emission unit KLN as presented in Table 1 of this permit.

- [Table 2 to Subpart JJJJJ of Part 63]
- 4.15.1.4 A review of available architectural and engineering plans, facility operating and maintenance procedures and logs, and fuel usage;
[Table 2 to Subpart JJJJJ of Part 63]
- 4.15.2. A list of major energy conservation measures that are within the permittee's control;
[Table 2 to Subpart JJJJJ of Part 63]
- 4.15.3. A list of the energy savings potential of the energy conservation measures identified;
and [Table 2 to Subpart JJJJJ of Part 63]
- 4.15.4. A comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping those investments.
[Table 2 to Subpart JJJJJ of Part 63]
- 4.16. NESHAP Subpart JJJJJ BLR1 General Duty Requirement. At all times, the permittee must operate and maintain BLR1, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the permittee to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to EPA that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [40 CFR § 63.11205(a)]

NESHAP Subpart JJJJJ Monitoring and Recordkeeping Requirements

- 4.17. NESHAP Subpart JJJJJ BLR1 Performance Tune-up Monitoring. The permittee shall measure and record the concentration of CO in parts per million, by volume, and O₂ in volume percent, in the boiler's effluent stream before and after the performance tune-up conducted to satisfy Condition 4.13. Measurements may be either on a dry or wet basis, as long as it is the same basis before and after the performance tune-up is performed. Measurements may be taken using a portable CO analyzer. [40 CFR § 63.11223(b)(5)]
- 4.18. NESHAP Subpart JJJJJ Recordkeeping for Compliance – BLR1 and KLN. The permittee shall maintain the following records: [40 CFR § 63.11225(c)]
- 4.18.1. A copy of each notification and report submitted to comply with NESHAP Subpart JJJJJ and all documentation supporting any Initial Notification or Notification of Compliance Status submitted to EPA. [40 CFR §§ 63.10(b)(2)(xiv) and 63.11225(c)(1)]
- 4.18.2. Records identifying BLR1, the date of tune-up, the procedures followed for tune-up, and the manufacturer's specifications to which BLR1 was tuned.
[40 CFR § 63.11225(c)(2)(i)]
- 4.18.3. A copy of the energy assessment report for BLR1 and its major energy use systems.
[40 CFR §§ 63.11225(c)(2)(iii) and 71.6(c)(1)]
- 4.19. NESHAP Subpart JJJJJ BLR1 Recordkeeping for General Duty Requirement. The permittee shall maintain the following records: [40 CFR § 63.11225(c)]
- 4.19.1. Records of the occurrence and duration of each malfunction of BLR1, or of the associated air pollution control and monitoring equipment. [40 CFR § 63.11225(c)(4)]
- 4.19.2. Records of actions taken during periods of malfunction to minimize emissions in accordance with Condition 4.16, including corrective actions to restore malfunctioning

BLR1, air pollution control, or monitoring equipment to its normal or usual manner of operation. [40 CFR § 63.11225(c)(5)]

4.20. NESHAP Subpart JJJJJ BLR1 Recordkeeping for Use of Non-Hazardous Secondary Materials as Fuels. The permittee shall maintain the following records:

- 4.20.1. If BLR1 combusts non-hazardous secondary materials that have been determined not to be a solid waste pursuant to 40 CFR § 241.3(b)(1), the permittee shall keep a record which documents how the secondary material meets each of the legitimacy criteria under 40 CFR § 241.3(d)(1).
- 4.20.2. If BLR1 combusts a fuel that has been processed from a discarded non-hazardous secondary material pursuant to 40 CFR § 241.3(b)(4), the permittee shall keep records as to how the operations that produced the fuel satisfies the definition of processing in 40 CFR § 241.2 and each of the legitimacy criteria in 40 CFR § 241.3(d)(1).
- 4.20.3. If BLR1 combusts a fuel that received a non-waste determination pursuant to the petition process submitted under 40 CFR § 241.3(c), the permittee shall keep a record that documents how the fuel satisfies the requirements of the petition process.
- 4.20.4. If BLR1 combusts non-hazardous secondary materials as fuel per 40 CFR §241.4, the permittee shall keep records documenting that the material is a listed non-waste under 40 CFR § 241.4(a).

[40 CFR § 63.11225(c)(2)(ii)]

NESHAP Subpart JJJJJ Reporting Requirements

4.21. NESHAP Subpart JJJJJ BLR1 Performance Tune-up Reporting. Maintain on-site and submit to EPA as part of the reporting satisfying Condition 3.47, as applicable, the following information for each performance tune-up conducted to satisfy Condition 4.13: [40 CFR § 63.11223(b)(6)]

4.21.1. The concentration of CO in the boiler's effluent stream in parts per million, by volume, and O₂ in volume percent, measured at high fire or typical operating load, before and after the tune-up of BLR1. [40 CFR § 63.11223(b)(6)(i)]

4.21.2. A description of any corrective action taken as a part of the tune-up of BLR1. [40 CFR § 63.11223(b)(6)(ii)]

4.22. NESHAP Subpart JJJJJ Notification of Compliance Status. The permittee shall submit a Notification of Compliance Status to EPA no later than July 19, 2014, and the notification shall be signed by the permittee's responsible official certifying its accuracy and attesting to whether the source has complied with NESHAP Subpart JJJJJ.

[40 CFR §§ 63.9(h)(2)(i) and 63.11225(a)(4)]

4.22.1. The notification shall be submitted electronically using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). [40 CFR § 63.11225(a)(4)(vi)]

4.22.2. The notification shall provide the following information: [40 CFR §§ 63.9(h)(1), 63.11214(b) and (c), and 63.11225(a)(4)]

4.22.2.1 The methods that were used to determine compliance; [40 CFR § 63.9(h)(2)(i)(A)]

4.22.2.2 The methods that will be used for determining continuing compliance, including a description of monitoring and reporting requirements and test methods; [40 CFR § 63.9(h)(2)(i)(C)]

- 4.22.2.3 A statement by the permittee as to whether BLR1 has complied with NESHAP Subpart JJJJJ or other requirements. [40 CFR § 63.9(h)(2)(i)(G)]
- 4.22.2.4 The statement, “This facility complies with the requirements in 40 CFR § 63.11214 to conduct an initial tune-up of BLR1.” [40 CFR § 63.11225(a)(4)(ii)]
- 4.22.2.5 The statement, “This facility has had an energy assessment performed according to § 63.11214(c).” [40 CFR § 63.11225(a)(4)(iii)]
- 4.22.2.6 The statement, “No secondary materials that are solid waste were combusted in any affected unit.” [40 CFR § 63.11225(a)(4)(v)]
- 4.23. NESHAP Subpart JJJJJ Annual Compliance Certification Report. Each year, the permittee shall prepare and submit to EPA by February 28 an Annual Compliance Certification Report for the previous calendar year. The report shall be signed by the permittee’s responsible official and provide the following information: [40 CFR §§ 63.11225(b) and 71.6(a)(3)(i)(A)]
 - 4.23.1. Company name and address. [40 CFR § 63.11225(b)(1)]
 - 4.23.2. Statement by a responsible official, with the official’s name, title, phone number, email address and signature, certifying the truth, accuracy and completeness of the notification and a statement of whether the source has complied with all the relevant standards and other requirements of NESHAP Subpart JJJJJ. [40 CFR § 63.11225(b)(2)]
 - 4.23.3. The statement, “This facility complies with the requirements in § 63.11223 to conduct a five-year tune-up of BLR1.” [40 CFR § 63.11225(b)(2)(i)]
 - 4.23.4. The statement, “No secondary materials that are solid waste were combusted in any affected unit.” [40 CFR § 63.11225(b)(2)(ii)]
 - 4.23.5. A description of any deviations from the applicable requirements during the previous calendar year, the time periods during which the deviations occurred, and the corrective actions taken. [40 CFR § 63.11225(b)(3)]
- 4.24. NESHAP Subpart JJJJJ BLR1 Notification of Combustion of Solid Waste. The permittee shall provide 30 days prior notice to EPA of the date upon which combusting of solid waste will commence or recommence in BLR1. The notification shall identify the following: [40 CFR § 63.11225(f)]
 - 4.24.1. The name of the owner or operator of BLR1, the location of BLR1, identification of BLR1 as a boiler that will commence combusting solid waste, and the date of the notice. [40 CFR § 63.11225(f)(1)]
 - 4.24.2. The currently applicable subcategory listed at 40 CFR § 63.11200. [40 CFR § 63.11225(f)(2)]
 - 4.24.3. The date on which the permittee became subject to the currently applicable emission limits. [40 CFR § 63.11225(f)(3)]
 - 4.24.4. The date upon which the permittee will commence combusting solid waste. [40 CFR § 63.11225(f)(4)]
- 4.25. NESHAP Subpart JJJJJ BLR1 Notification of Fuel Switch, Physical Change or Permit Limit. The permittee shall provide notice to EPA if the permittee switched fuels or made a physical change to BLR1 and the fuel switch or change resulted in (a) the applicability of a different subcategory of NESHAP Subpart JJJJJ listed at 40 CFR § 63.11200, (b) BLR1 becoming subject

to NESHAP Subpart JJJJJ, or (c) BLR1 switching out of NESHAP Subpart JJJJJ due to a change to 100 percent natural gas. Notice shall also be provided if EPA issues a permit limit to the permittee that results in the permittee being subject to NESHAP Subpart JJJJJ. Notice shall be provided within 30 days of the change, and the notification shall identify the following:

[40 CFR § 63.11225(g)]

4.25.1. The name of the owner or operator of BLR1, the location of BLR1, identification of BLR1 as a boiler that has switched fuels, was physically changed, or took a permit limit, and the date of the notice. [40 CFR § 63.11225(g)(1)]

4.25.2. The date upon which the fuel switch, physical change, or permit limit occurred. [40 CFR § 63.11225(g)(2)]

Monitoring for PSD Modifications to the Facility

4.26. Where there is a reasonable possibility (as defined in 40 CFR § 52.21(r)(6)(vi)) that a project (other than projects at a source with a plantwide applicability limitation (PAL)) that is not a part of a major modification may result in a significant emissions increase of any regulated NSR pollutant and the permittee elects to use the method specified in 40 CFR § 52.21(b)(41)(ii)(a) through (c) for calculating projected actual emissions, the permittee shall perform the following:

4.26.1. Before beginning actual construction of the project, document and maintain a record of the following information.

4.26.1.1 A description of the project.

4.26.1.2 Identification of the emissions unit(s) whose emissions of a regulated NSR pollutant could be affected by the project.

4.26.1.3 A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including the baseline actual emissions, the projected actual emissions, the amount of emissions excluded under 40 CFR § 52.21(b)(41)(ii)(c) and an explanation for why such amount was excluded, and any netting calculations, if applicable.

4.26.2. Monitor the emission of any regulated NSR pollutant that could increase as a result of the project and that is emitted by any emissions unit identified in Condition 4.26.1.2; and calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of five years following resumption of regular operations after the change, or for a period of 10 years following resumption of regular operations after the change if the project increases the design capacity or potential to emit of that regulated NSR pollutant at such emissions unit.

[40 CFR § 52.21(r)(6)]

Reporting for PSD Modifications to the Facility

4.27. If monitoring and recordkeeping is required in Condition 4.26, the permittee shall report to EPA when the annual emissions, in tons per year, from the project identified in Condition 4.26.1.1 exceed the baseline actual emissions as documented and maintained pursuant to Condition 4.26.1.3 by a significant amount (as defined in 40 CFR § 52.21(b)(23)) for that regulated NSR pollutant, and when such emissions differ from the preconstruction projection as documented and maintained pursuant to Condition 4.26.1.3. Such report shall be submitted to EPA within 60 days after the end of such year. The report shall contain the following.

4.27.1. The name, address and telephone number of the major stationary source.

- 4.27.2. The annual emissions as calculated pursuant to Condition 4.26.2.
- 4.27.3. Any other information that the owner or operator wishes to include in the report (e.g., an explanation as to why the emissions differ from the preconstruction projection).

[40 CFR § 52.21(r)(6)]

5. Unit-Specific Requirements – BLR1 (Biomass Gasifier and Boiler)

BLR1 Emission Limits and Work Practice Requirements

- 5.1. FARR Particulate Matter Limit. Particulate matter emissions from the boiler stack shall not exceed an average of 0.46 grams per dry standard cubic meter (0.2 grains per dry standard cubic foot), corrected to seven percent oxygen, during any three-hour period.

- 5.1.1. Compliance with the particulate matter limit is determined using EPA Reference Method 5 (see 40 CFR part 60, Appendix A).

[40 CFR §§ 49.125(d)(2) and (e)]

- 5.2. FARR Sulfur Dioxide Emission Limit. Sulfur dioxide emissions from the boiler stack shall not exceed an average of 500 parts per million by volume, on a dry basis and corrected to seven percent oxygen, during any three-hour period.

- 5.2.1. Compliance with the SO₂ limit is determined using EPA Reference Methods 6, 6A, 6B, and 6C as specified in the applicability section of each method (see 40 CFR part 60, appendix A) or, alternatively, a continuous emission monitoring system that complies with Performance Specification 2 found in Appendix B of 40 CFR Part 60.

[40 CFR §§ 49.129(d)(1) and (e)]

- 5.3. At all times that BLR1 operates, gas produced by the gasifier shall be combusted in the boiler, and exhaust generated by the boiler shall be directed to the multiclone.

[40 CFR §§ 49.124(d)(1), 49.125(d)(2) and 71.6(a)(1)]

- 5.4. The multiclone shall be maintained in good operating condition and shall be operated at all times that BLR1 is operational.

[40 CFR §§ 49.124(d)(1), 49.125(d)(2) and 71.6(a)(1)]

- 5.5. At all times, including periods of startup, shutdown, and malfunction, the permittee shall, to the extent practicable, maintain and operate BLR1, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to EPA which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

[40 CFR § 60.11(d)]

- 5.6. The permittee shall not build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard under 40 CFR part 60. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere.

[40 CFR § 60.12]

BLR1 Testing Requirements

5.7. Initial Particulate Matter Test. No later than 120 days after issuance of this permit, the permittee shall measure particulate matter emissions from the boiler stack using the test method specified in Condition 5.1.1.

5.7.1. During each source test run, the permittee shall measure the visible emissions from the boiler stack for the duration of each particulate matter test run using the procedures specified in Condition 3.9.1.

5.7.2. During each source test run, the permittee shall record the values (and time recorded) of the parameters specified in Condition 5.10. For monitoring devices that do not have continuous recording devices, the recorded values must consist of no fewer than three values recorded per test run.

5.7.3. For each source test run, the permittee shall determine and record BLR1's fuel-heat-input-to-steam-output ratio (mmBtu/mlbsteam) using the procedures specified in the most recent version of EPA Region 10's "Procedure to Determine a Boiler's Fuel-Heat-Input-To-Steam-Output Ratio." The permittee shall estimate and record the percentages of bark, species of wood and material less than 1/8 inch prior to homogenizing composite sample.

[40 CFR § 71.6(a)(3)(i)(B)]

5.8. Periodic Particulate Matter Test. The permittee shall measure particulate matter emissions from the boiler stack using the procedures specified in Condition 5.7 as follows:

If testing required in Condition 5.7 results in measured particulate matter emissions...	Additional particulate matter testing shall be conducted...
≥ 90% of the emission limit in Condition 5.1	Once per calendar year, between December 1 and March 31
≥ 75% but < 90% of the emission limit in Condition 5.1	Once per two calendar years, between December 1 and March 31
≥ 50% but < 75% of the emission limit in Condition 5.1	Once per four calendar years, between December 1 and March 31

[40 CFR § 71.6(a)(3)(i)(B)]

BLR1 Monitoring and Recordkeeping Requirements

5.9. Periodic Visible Emission Monitoring. The permittee shall measure visible emissions from the boiler stack within three months after this permit is issued for one hour using the procedures specified in Condition 3.9.1 and subsequently as specified in the following table.

If the most recent visible emission measurement results in measured opacity of ...	Additional one-hour visible emissions measurements shall be conducted ...
One or more 6-minute average > 20% opacity	Once per day, until two consecutive daily measurements are ≤ 20%
One or more 6-minute average ≥ 10% opacity	Once per week, with consecutive tests at least 5 days apart, until either a) two consecutive weekly measurements are <

If the most recent visible emission measurement results in measured opacity of ...	Additional one-hour visible emissions measurements shall be conducted ...
	10% or b) one weekly measurement is < 5%
All 6-minute averages < 10% opacity	Once per calendar quarter, with consecutive tests at least 30 days apart

[40 CFR §§ 71.6(a)(3)(i)(B) and (C), 71.6(a)(3)(ii) and 71.6(c)(1)]

- 5.10. Periodic Monitoring of Operation. The permittee shall install, calibrate, operate and maintain equipment necessary to measure and record:
- 5.10.1. Steam production (lb/hr) - continuous measurement/display, recorded at least once per hour with at least 90% monthly data capture;
 - 5.10.2. Steam pressure (psig) - continuous measurement/display, recorded at least once per month;
 - 5.10.3. Boiler excess oxygen downstream of the combustion chamber (%) - continuous measurement/display, recorded at least once per day with at least 90% monthly data capture; and
 - 5.10.4. Pressure drop across the multiclone (inches of water) - continuous measurement/display, recorded at least once per day with at least 90% monthly data capture.

[40 CFR §§ 71.6(a)(3)(i)(B) and (C), 71.6(a)(3)(ii) and 71.6(c)(1)]

- 5.11. Monitoring of Gasifier Pressure Relief Stack. Within 120 days of issuance of this permit, the permittee shall install, calibrate, operate and maintain equipment necessary to measure and record the frequency and duration of time periods in which gas produced by the gasifier is diverted to the pressure relief stack.
- 5.11.1. For each instance gas produced by the gasifier is diverted to the pressure relief stack, the permittee shall record the reasons for the occurrence and the corrective actions, if any, performed to bring the episode to a conclusion.

[40 CFR 71.6(a)(3)(i)(B) and (C)]

- 5.12. The permittee shall record and maintain records of the amount of each fuel combusted in BLR1 during each calendar month. [40 CFR § 60.48c(g)(2)]
- 5.13. The permittee shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of BLR1; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative. [40 CFR § 60.7(b)]
- 5.14. The permittee shall maintain at the facility a file of all measurements including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by 40 CFR part 60, subpart A and subpart Dc in a permanent form suitable for inspection in accordance with 40 CFR § 60.7(f). [40 CFR § 60.7(f)]

6. Unit-Specific Requirements – KLN (Lumber Drying Kilns)

KLN Emission Limits and Work Practice Requirements

- 6.1. Particulate matter emissions from the stack(s) of this emission unit shall not exceed an average of 0.23 grams per dry standard cubic meter (0.1 grains per dry standard cubic foot) during any three-hour period.
- 6.1.1. Compliance with the particulate matter limit is determined using EPA Reference Method 5 (see 40 CFR part 60, Appendix A).

[40 CFR §§ 49.125(d)(3) and (e)]

7. Unit-Specific Requirements – CYC (Wood Residue Cyclones and Target Boxes) P12, P13 and P34

CYC P12, P13 and P34 Emission Limits and Work Practice Requirements

- 7.1. Particulate matter emissions from the stack(s) of these emission units shall not exceed an average of 0.23 grams per dry standard cubic meter (0.1 grains per dry standard cubic foot) during any three-hour period.
- 7.1.1. Compliance with the particulate matter limit is determined using EPA Reference Method 5 (see 40 CFR part 60, Appendix A).

[40 CFR §§ 49.125(d)(3) and (e)]

8. Unit-Specific Requirements – CYC (Wood Residue Cyclones and Target Boxes) P8, P9, P10, P11, P18, P19 and P20

CYC P8, P9, P10, P11, P18, P19 and P20 Emission Limits and Work Practice Requirements

- 8.1. Particulate matter emissions from the stack(s) of these emission units shall not exceed an average of 0.23 grams per dry standard cubic meter (0.1 grains per dry standard cubic foot) during any three-hour period.
- 8.1.1. Compliance with the particulate matter limit is determined using EPA Reference Method 5 (see 40 CFR part 60, Appendix A).

[40 CFR §§ 49.125(d)(3) and (e)]

- 8.2. Periodic Visible Emission Monitoring. The permittee shall measure visible emissions from the stack within three months after this permit is issued for 30 minutes using the procedures specified in Condition 3.9.1 and subsequently as specified in the following table.

If the most recent visible emission measurement results in measured opacity of ...	Additional 30-minute visible emissions measurements shall be conducted ...
One or more 6-minute average > 20% opacity	Once per day, until two consecutive daily measurements are ≤ 20%
One or more 6-minute average ≥ 10% opacity	Once per week, with consecutive tests at least 5 days apart, until either a) two consecutive weekly measurements are <

If the most recent visible emission measurement results in measured opacity of ...	Additional 30-minute visible emissions measurements shall be conducted ...
	10% or b) one weekly measurement is < 5%
All 6-minute averages < 10% opacity	Once per calendar quarter, with consecutive tests at least 30 days apart

[40 CFR §§ 71.6(a)(3)(i)(B) and (C), 71.6(a)(3)(ii) and 71.6(c)(1)]

9. Unit-Specific Requirements – MNFA (Miscellaneous Non-Fugitive Activities)

MNFA Emission Limits and Work Practice Requirements

- 9.1. Particulate matter emissions from the stack(s) of these emission units shall not exceed an average of 0.23 grams per dry standard cubic meter (0.1 grains per dry standard cubic foot) during any three-hour period.
 - 9.1.1. Compliance with the particulate matter limit is determined using EPA Reference Method 5 (see 40 CFR part 60, Appendix A).

[40 CFR §§ 49.125(d)(3) and (e)]

United States Environmental Protection Agency
Region 10, Office of Air, Waste and Toxics
AWT-107
1200 Sixth Avenue, Suite 900
Seattle, Washington 98101-3140

Permit Number: R10T5070100
Issued: July 30, 2014
Effective: August 30, 2014
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Replaces: R10T5-ID-00-02
AFS Plant I.D. Number: 16-061-00002

Statement of Basis

Title V Air Quality Operating Permit Permit Renewal No. 1

Permit Writer: Dan Meyer

Empire Lumber Company d.b.a. Kamiah Mills

Nez Perce Reservation
Kamiah, Idaho

Purpose of Permit and Statement of Basis

Title 40 Code of Federal Regulations Part 71 establishes a comprehensive air quality operating permit program under the authority of Title V of the 1990 amendments to the federal Clean Air Act. The air quality operating permit is an enforceable compilation of all of the applicable air pollution requirements that apply to an existing affected air emissions source. The permit is developed via a public process, may contain additional new requirements to improve monitoring of existing requirements, and contains procedural and prohibitory requirements related to the permit program itself. The permit is valid for five years and may be renewed.

This document, the statement of basis, summarizes the legal and factual basis for the permit conditions in the air quality operating permit to be issued to Empire Lumber Company d.b.a. Kamiah Mills (referred to herein as ELC, facility, source, or permittee). Unlike the air quality operating permit, this document is not legally enforceable. This statement of basis summarizes the emitting processes at the facility, air emissions, permitting and compliance history, the statutory or regulatory provisions that relate to the subject facility, and the steps taken to provide opportunities for public review of the permit. The permittee is obligated to follow the terms of the permit. Any errors or omissions in the summaries provided here do not excuse the permittee from the requirements of the permit.

Table of Contents

1. EPA Authority to Issue Title V Permits	3
2. Facility Information	3
2.1 Location	3
2.2 Nez Perce Reservation	3
2.3 Facility Description	3
2.4 Local Air Quality and Attainment Status	5
2.5 Permitting, Construction and Compliance History	5
3. Emission Inventory.....	6
3.1 Emission Inventory Basics	6
3.2 Potential to Emit (PTE)	7
4. Regulatory Analysis and Permit Content.....	9
4.1 Federal Air Quality Requirements.....	9
4.2 Other Federal Requirements	13
4.3 Permit Conditions	14
5. Public Participation.....	25
5.1 Public Notice and Comment.....	25
5.2 Response to Public Comments and Permit Issuance	25
6. Changes to Permit Unrelated to Public Comment	32
7. Abbreviations and Acronyms	36
Appendix A – PTE Emissions Inventory	

1. EPA Authority to Issue Title V Permits

On July 1, 1996, EPA adopted regulations (see 61 Federal Register (FR) 34202) codified at 40 Code of Federal Regulations (CFR) Part 71 setting forth the procedures and terms under which the Agency would administer a federal operating permit program. These regulations were updated on February 19, 1999 (64 FR 8247) to incorporate EPA's approach for issuing federal operating permits to affected stationary sources in Indian Country.

As described in 40 CFR § 71.4(a), EPA will implement a Part 71 program in areas where a state, local, or Tribal agency has not developed an approved Part 70 program. Unlike states, Indian Tribes are not required to develop operating permit programs, though EPA encourages Tribes to do so. See, for example, Indian Tribes: Air Quality Planning and Management (63 FR 7253, February 12, 1998) (also known as the "Tribal Authority Rule"). Therefore, within Indian Country, EPA will administer and enforce a Part 71 federal operating permit program for stationary sources until the governing Indian Tribe receives EPA's approval to administer its own operating permit program.

2. Facility Information

2.1 Location

The ELC facility is located along Railroad Street near the intersection of State Highway No. 12 in Kamiah, Idaho in the southeast quadrant of the Nez Perce Reservation. The facility is located within the exterior boundaries of the 1863 Nez Perce Reservation and is in Indian Country as defined in 40 CFR Part 71.

2.2 Nez Perce Reservation

The Nez Perce Reservation is in northern Idaho. In 1855, Governor Stevens concluded a treaty with the Nez Perce Tribe recognizing tribal rights to an immense tract of country consisting of some 7.5 million acres. A new treaty in 1863 reduced the reservation to its current size of approximately 760,000 acres located in northern Idaho. Today there are 15 communities located within the boundaries of the reservation. Based on 1986 data, the population is estimated at about 11,400 within the incorporated communities. Another 5,000 to 6,000 people live in the rural areas. Tribal enrollment is approximately 3,300 members with 1,000 members living off the reservation.

The Nez Perce Tribe operates under a constitution that was approved in 1958. The Tribe's constitution provides that a nine member Nez Perce Tribal Executive Committee is the governing body.

Tribal Contact: Julie Simpson
Air Quality Program Coordinator
Nez Perce Tribe - ERWM
P.O. Box 365
Lapwai, Idaho 83540-0365
Phone: 208.843.7375
Email: julies@nezperce.org

2.3 Facility Description

ELC's Kamiah facility produces dry dimensional lumber by first kiln-drying and then planing green lumber received from its nearby Weippe, Idaho sawmill. Wood residue (primarily planer shavings, sawdust, hogged edgings and hogged trim ends) is either (a) combusted in the facility's biomass gasifier

and boiler (“BLR1”) to generate steam for use in the lumber drying kilns (“KLN”), or (b) sold to outside companies. The facility does infrequently purchase biomass to combust in BLR1. The facility has the capability of drying approximately 120 million board feet of lumber annually, resulting in maximum annual production of about 100 million board feet of planed-dried lumber.

The air pollution emission units and control devices that exist at the facility are listed in Table 2-1 below by emission unit identification (EU ID). None of the emission units vent through a stack shared with another emission unit. Installation dates for each emission unit, to the extent known, are listed because they are important in determining applicability of federal PSD, NSPS and MACT standards (see further discussion in Section 4). Capacities are listed for several emission units based on the best information available from the applicant. Those control devices that are required by rule or this permit are so noted.

Table 2-1 – Emission Units (EU) & Control Devices

EU ID	Emission Unit Description	Control Device¹
BLR1	<p><i>Biomass Gasifier and Boiler.</i> 29.9 MMBtu/hr heat input capacity steam generating unit consisting of a Converta Kiln, Inc. biomass gasifier and a Superior Boiler Works, Inc. Mohawk Scotch Marine fire-tube boiler. The gasifier produces gas from biomass, and the boiler combusts the produced gas. A pipe conveys the gas from the gasifier to the boiler where it is introduced through a burner. Maximum steam production of 20,700 lb/hr generating 100 psi saturated steam. Installed November 1999. Boiler exhaust is routed to a multiclone and exhausted to the atmosphere via an induced draft fan. On occasion, the gas produced by the gasifier is diverted away from boiler (and multiclone) and released directly to atmosphere via a pressure relief stack as necessary to maintain safe operation.</p> <p>In the permit and this statement of basis, use of the term “boiler” refers to the boiler section of this emission unit. Use of the term “gasifier” refers to the gasifier section of this emission unit. Use of the term “BLR1” refers to the single emission unit consisting of both the gasifier and boiler.</p>	<p>Multiclone manufactured by Boiler & Steam Systems, LLC. Model: MC-60-UP 46-7-7-4.0. Installed June 6, 2006.</p> <p>This multiclone replaced multiclone installed November 1999.</p>
KLN	<p><i>Lumber Drying Kilns.</i> Five 84-foot double-track indirectly heated Wellons lumber drying kilns. Kilns P14, P15 and P16 were installed circa Fall 2005 to Spring 2006, and each has 64 dry bulbs and 2 wet bulbs. Kilns P31 and P32 began operating April 23, 2012; and each has 48 dry bulbs and 2 wet bulbs. The facility’s annual lumber drying capacity is limited to around 120,000 mbf given the upstream steam generating capacity and plumbing. These two factors prevent the facility from drying lumber at temperatures exceeding 200°F.</p>	None
CYC	<p><i>Wood Residue Cyclones and Target Boxes.</i> Nine cyclones (P8, P9, P10, P11, P12, P13, P18, P19 and P34) and one target box (P20) employed to capture wood residue and deposit into storage structures. The ten capture devices are process equipment and not air pollution control devices (APCD).²</p>	None

EU ID	Emission Unit Description	Control Device ¹
MNFA	<i>Miscellaneous Non-Fugitive Activities.</i> Planing (P1 and P2), hogging (P6), sawing (P3 and P4), mechanical transfer of wood residue into ST3 Fuel House from Cyclones P34, P9 and P11 (TR8 – 10), and mechanical transfer of ash from BLR1 multiclone into hopper (TR-11). ST3 is not considered a building given that it is not entirely enclosed.	Inside building – P1, P2, P3, P4 and P6.
MFA	<i>Miscellaneous Fugitive Activities.</i> Hogging (P17A, P17B, P21 and P33), sawing (P7) and various mechanical transfers of wood residue (TR1 – 7).	None
PT	<i>Plant Traffic.</i> Traffic generating fugitive dust emissions as mobile sources travel along paved and unpaved roads.	Watering and/or other dust suppressant
PLSV	<i>Petroleum Liquids Storage Vessels.</i> Five storage vessels containing the following liquids: gasoline, diesel, parts washers, propane and lube oil.	None

¹ Use of multiclone is required to comply with FARR PM limit for wood-fired boiler stacks.

² See November 27, 1995 letter from EPA's David Solomon to Intel's Timothy J. Mohin. Although CYC is considered process equipment (as opposed to APCD) for the purpose of calculating potential emissions, CYC is not considered a "process source" in the context of the FARR as CYC does not cause a change in material by either chemical or physical means. See definition of "process source" at 40 CFR § 49.123.

2.4 Local Air Quality and Attainment Status

Local Air Quality and Attainment Status: The Nez Perce Reservation is in attainment with the fine particulate (PM_{2.5}) national ambient air quality standard (NAAQS) and "unclassified" for all other criteria pollutants. An area is unclassifiable when there is insufficient monitoring data to determine compliance with the NAAQS. The Nez Perce tribe operated a regulatory PM_{2.5} monitor in Kamiah from 2005 to 2007. The 24-hour PM_{2.5} design value for that period was 27.7 µg/m³, which is below the PM_{2.5} 24-hour NAAQS of 35 µg/m³. Also, the annual average PM_{2.5} concentration for 2005 to 2007 was 9.5 µg/m³, which was in attainment with the annual PM_{2.5} NAAQS of 15 µg/m³. In a December 22, 2008 letter to the Nez Perce tribe, EPA declared that the Nez Perce reservation attained the PM_{2.5} NAAQS. Currently, measurements taken by a non-regulatory ambient air monitor operating by the Nez Perce at the Kamiah site indicate that the area continues to attain the PM_{2.5} NAAQS.

2.5 Permitting, Construction and Compliance History

A chronological summary of permit activities for the facility is presented in Table 2-2 below.

Table 2-2 – Clean Air Act Permitting History

Date	Permit No.	Action
08/08/01	R10T5-ID-00-02	EPA issues initial Title V permit.
02/08/05 – 02/08/06	R10T5-ID-00-02	Title V permit renewal application due to EPA.
07/08/05	R10T5-ID-00-02	EPA receives ELC Title V permit renewal application.
08/08/06	R10T5-ID-00-02	Title V permit expires but is administratively extended because ELC submitted a timely permit renewal application.

Date	Permit No.	Action
09/27/07	R10NT500800	EPA issues non-Title V permit to limit HAP emissions to less than major source threshold levels to avoid Plywood and Composite Wood Products MACT and any other future major source MACT.
12/28/09	R10NT500800	At the request of ELC, EPA terminates non-Title V permit.
08/06/13	not defined	ELC submits tribal minor NSR application to limit HAP emissions to less than major source thresholds.
04/17/14	R10T5070100	Pre-draft Title V permit renewal is sent to ELC and Nez Perce Tribe for initial review.
05/27/14 – 06/25/14	R10T5070100	Public comment period for draft Title V permit renewal.

EPA has not acted upon ELC's August 6, 2013 tribal minor NSR application, and the proposed Part 71 renewal permit does not reflect the application's owner-requested limits to restrict HAP emissions.

The Nez Perce Tribe Air Quality Program has inspected the facility each year for the past five years; 2009 to 2013. Prior to that, EPA inspected the facility every other year between 2002 and 2008. On June 5, 2006, EPA issued a notice of violation (NOV) to ELC stemming from a March 22, 2006 EPA inspection during which the EPA inspector observed thick black smoke being exhausted to atmosphere from the boiler. The NOV was issued to ELC for failure to maintain and operate the boiler in a manner consistent with good air pollution control practices for minimizing emissions (40 CFR § 60.11(d)) and for exceeding applicable opacity standard of 20% (40 CFR § 49.124). Upon request, ELC provided information related to the operation and maintenance of the boiler. No further enforcement action was taken.

On December 16, 2010, EPA issued a NOV to ELC for violating the requirements of 40 CFR § 49.124 on several occasions between February and October 2009. The NOV was based upon information provided by ELC in response to a July 29, 2010 information request. According to the records provided by ELC, opacity in excess of the FARR limit was observed being exhausted to atmosphere from various cyclones serving the wood residue pneumatic transport system. EPA subsequently issued an Administrative Complaint against ELC in April 2012. The matter was resolved in June 2013 with EPA and ELC entering into a Consent Agreement and Final Order.

3. Emission Inventory

3.1 Emission Inventory Basics

An emission inventory generally reflects either the "actual" or "potential" emissions from a source. Actual emissions generally represent a specific period of time and are based on actual operation and controls. Potential emissions, referred to as potential to emit (PTE), generally represent the maximum capacity of a source to emit a pollutant under its physical and operational design, taking into consideration regulatory restrictions, but only required control devices. PTE is often used to determine applicability to several EPA programs, including Title V, PSD and Section 112 (MACT).

Emissions can be broken into two categories: point and fugitive. Fugitive emissions are those which could not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening. Examples of fugitive emissions are roads, piles that are not normally enclosed, wind blown dust from open areas, and those activities that are normally performed outside buildings. Point sources of emissions include any emissions that are not fugitive.

The equation below represents the general technique for estimating emissions (in tons per year) from each emission unit at the facility. Emissions are calculated by multiplying an emission factor by an operational

parameter. To estimate actual emission, the permittee will need to track the actual operational rates. Note that emission factors may be improved over time.

$$E = EF \times OP \times K$$

Where:

- E = pollutant emissions in tons/year
- EF = emission factor (see Appendix A to this Statement of Basis)
- OP = operational rate (or capacity for PTE)
- K = 1 ton/2000 lbs for conversion from pounds per year to tons per year

For certain activities like plant traffic that generates fugitive dust, emission estimation techniques require substantial site-specific parameter tracking. To simplify the ongoing annual emissions inventory effort associated with quantifying emissions for plant traffic at a sawmill, establish a ratio between its emissions and overall plant activity (e.g. annual lumber production). Once this ratio is established up-front, annual plant traffic emissions for subsequent years can be estimated by multiplying the ratio by a particular year's annual lumber production. All of the techniques and site-specific parameters and assumptions should be reviewed each year before estimating emissions to be sure they remain appropriate.

3.2 Potential to Emit (PTE)

In July 2005, ELC completed and submitted EPA Part 71 Operating Permit Forms PTE and EMISS as part of its Title V permit renewal application. Since then, some emission units have been disassembled while others have been added. The permittee most recently submitted facility-wide PTE information to EPA on November 4, 2013 in support of this permitting action.

EPA has documented the facility PTE in Appendix A. In some instances, EPA revised the emission estimates provided by the permittee to more accurately reflect potential emissions from the facility. A summary of the facility's PTE is presented in Table 3-1 below. Note that while fugitive emissions are included in Table 3-1, fugitive emissions are not always used to determine program applicability as explained in more detail in Section 4.1 of this Statement of Basis.

Table 3-1 – Facility Potential to Emit¹

Pollutant ²	EMISSION UNIT ³						Total
	BLR1	KLN	CYC	MNFA	MFA	PT	
CO	78.6						79
Pb							0
NO _x	16.5						17
PM	54.0	3.0	10.6	0.01	0.5	not calculated	not calculated
PM ₁₀	56.2	3.0	9.0	0.004	0.3	not calculated	not calculated
PM _{2.5}	56.2	3.0	5.3	0.001	0.1	not calculated	not calculated
SO ₂	9.0						9
VOC	2.2	171.0	9.1				182
GHG (CO ₂ e) ⁴	27,675						27,675
Methanol		8.9					9
Total HAP	5.1	17.6					23

¹ Fugitive emissions are included in this table but may not always be used in applicability determinations (see Section 4.1)

² CO = carbon monoxide; Pb = lead; NO_x = oxides of nitrogen; PM = particulate matter; PM₁₀ = particulate matter with diameter 10 microns or less; PM_{2.5} = particulate matter with diameter 2.5 microns or less; SO₂ = sulfur dioxide; VOC = volatile organic compounds; GHG = greenhouse gases; methanol is the individual hazardous air pollutant (HAP – see Clean Air Act, Section 112(b)) with greatest PTE at this facility; plant-wide total HAP = all HAPs totaled

³ BLR1 = biomass gasifier and boiler, KLN = lumber drying kilns, CYC = wood residue cyclones & target boxes, MNFA = miscellaneous non-fugitive activities, MFA = miscellaneous fugitive activities, PT = plant traffic.

⁴ The DC Circuit Court of Appeals on July 12, 2013 vacated EPA regulations that delayed until July 21, 2014 consideration of CO₂ emissions resulting from biomass combustion in determining PSD and Title V applicability pursuant to 40 CFR §§ 52.21(b)(49)(ii)(a) and 71.2 definition of "subject to regulation." See explanation for exemption provided by EPA at 76 FR 43490. See DC Circuit Court of Appeals July 12, 2013 ruling vacating the exemption at [http://www.cadc.uscourts.gov/internet/opinions.nsf/F523FF1F29C06ECA85257BA6005397B5/\\$file/11-1101-1446222.pdf](http://www.cadc.uscourts.gov/internet/opinions.nsf/F523FF1F29C06ECA85257BA6005397B5/$file/11-1101-1446222.pdf)

The PTE estimates for the facility generally assume all units operate 8760 hours per year. BLR1's potential PM emissions were calculated assuming emission rates equal to the applicable FARR PM emission limit for wood-fired boiler stacks of 0.2 gr/dscf at 7% O₂. This is equivalent to about 0.4 lb/MMBtu. The permit requires the facility to vent the boiler's exhaust to its multiclone at all times to achieve compliance with the PM limit. Although BLR1 is subject to the FARR combustion source stack SO₂ emission limit of 500 ppm and the less stringent FARR solid fuel sulfur content limit of 2% by weight, BLR1's PTE was determined assuming 0.2% sulfur in the wood and 15% conversion of sulfur to SO₂. EPA selected these values based upon information presented in an article appearing in a technical journal.¹ According to the article, wood residue contains less than 1/10th the FARR sulfur content limit and most of the sulfur is combined with oxygen and the ash products of combustion to form sulfates. In the absence of any applicable emission limit for NO_x, PTE for the pollutant was determined based upon the 90th percentile value for three stack test runs. BLR1's CO, Pb, VOC and HAP PTE were estimated by employing AP-42 emission factors in the absence of any applicable emission limits or more representative emissions data. BLR1's potential greenhouse gas emissions were estimated employing emission factors appearing in the Mandatory Greenhouse Gas Reporting Rule (40 CFR § 98) pursuant to Appendix I of the March 2011 EPA guidance document entitled, "PSD and Title V Permitting Guidance for Greenhouse Gases." Page I-1. For a derivation of all emission factors employed to create BLR1's PTE inventory, see EPA Region 10's May 8, 2014 memorandums entitled, "Non-HAP Potential to Emit Emission Factors for Biomass Boilers in Pacific Northwest Indian Country" and "HAP Potential to Emit Emission Factors for Biomass Boilers Located in Pacific Northwest Indian Country."

Although KLN vents are subject to the FARR visible emissions limit of 20% opacity, the limit was not further considered in deriving a PM PTE emission factor due to the lack of a correlation between opacity and PM emissions. Similarly, the applicable FARR stack PM emission limit of 0.1 gr/dscf limit was not further considered in deriving PM PTE emission factor because the resultant PTE would be unrealistically high. Lacking more representative emissions data, PM PTE was estimated by employing an emission factor published by the Oregon Department of Environmental Quality in an August 1, 2011 document entitled, "Wood Products Emission Factors, AQ-EF02." EPA assumed all PM emitted was fully PM₁₀ and PM_{2.5} organic aerosols. In the absence of any applicable emission limits, KLN's HAP and VOC PTE were estimated by employing worst-case emission factors derived from lab-scale testing conducted largely by Professor Mike Milota at Oregon State University. For a derivation of all emission factors employed to create KLN's PTE inventory, see EPA Region 10's May 8, 2014 memorandum entitled, "Particulate Matter Potential to Emit Emission Factors for Activities at Sawmills, Excluding Boilers, Located in Pacific Northwest Indian Country" along with document entitled, "EPA Region 10 HAP and VOC Emission Factors for Lumber Drying, December 2012."²

For activities related to the generation and handling of wood residue, potential PM emissions were estimated based upon emission factors derived in EPA Region 10's May 8, 2014 memorandum entitled, "Particulate Matter Potential to Emit Emission Factors for Activities at Sawmills, Excluding Boilers, Located in Pacific Northwest Indian Country." None of the emission factors are based upon applicable FARR emission limits and requirements for one or more of the following reasons (a) lack of correlation

¹ H. S. Oglesby & R. O. Blosser (1980) Information on the Sulfur Content of Bark and its Contribution to SO₂ Emissions when Burned as a Fuel, Journal of the Air Pollution Control Association, 30:7, 769-772, DOI:10.1080/00022470.1980.10465107.

² See February 8, 2013 letter from EPA Region 10 to the facility.

between opacity and PM emissions, (b) lack of correlation between compliance with requirements and PM emissions, and (c) resultant PTE would be unrealistically high. For further explanation, see May 8, 2014 memorandum. Potential VOC emissions generated by wood residue off-gassing (emitted through cyclone and target box exhaust) were estimated based upon emission factors derived from information presented in a September 1996 technical bulletin published by the National Council for Air and Stream Improvement entitled, "Laboratory and Limited Field Measurements of VOC Emissions from Wood Residuals."

The permittee is expected to use the emission factors and calculation methods presented in Appendix A unless the permittee demonstrates that a more appropriate emission factor or calculation method is available and should be used (e.g., results of more recent source testing or sampling, revised emission factors published in AP-42, etc.). It is important to emphasize that to the extent the permittee relies on any type of emission control technique to estimate emissions used to determine annual fees, or the applicability of a regulatory program, use of the technique must be fully documented and verifiable.

EPA did not calculate potential emissions resulting from either plant traffic or petroleum liquids storage vessels. Because plant traffic PM emissions are not considered in determining Title V applicability, EPA judged that it was not necessary to determine PTE prior to acting upon permit renewal application. For petroleum liquids storage vessels, VOC emissions from the five storage vessels containing gasoline, diesel, parts washers, propane and lube oil are negligible (in comparison to kiln, wood residue off-gassing and boiler emissions) based upon engineering judgment formed by calculating emissions for similar tanks (size, product and usage) at other facilities. EPA expects the permittee to quantify emissions from plant traffic and petroleum liquids storage vessels (along with emissions from all other pollutant emitting activity) and report to EPA the results of the calculations as required by the permit.

4. Regulatory Analysis and Permit Content

EPA is required by 40 CFR Part 71 to include in this Title V permit all emission limitations and standards that apply to the facility, including operational, monitoring, testing, recordkeeping and reporting requirements necessary to assure compliance. This section explains which air quality regulations apply to this facility and how those requirements are addressed in the permit.

Located within Indian Country, the ELC planer mill is subject to federal air quality regulations, but is not subject to state air quality regulations. EPA does not consider any permits issued by Idaho to the ELC facility to be applicable requirements. The facility could be subject to tribal air quality regulations; however, the Tribe has not gone through the process of obtaining authorization to be treated in the same manner as states under 40 CFR §§ 49.6 and 49.7 (Tribal Authority Rule) and obtaining approval of air quality regulations as a "Tribal Implementation Plan." Therefore, Tribal air quality regulations, if any, are not federally enforceable and do not meet the definition of "applicable requirement" under 40 CFR Part 71. As such, there are no Tribal air quality regulations in the ELC Title V permit.

EPA relied on information provided in ELC's Title V permit application and on supplementary information provided by ELC to determine the requirements that are applicable to the planer mill. Future modifications to the mill could result in additional requirements.

4.1 Federal Air Quality Requirements

Title V Operating Permit Program. Title V of the Clean Air Act and the implementing regulation found in 40 CFR part 71 require major sources (as well as a selection of non-major sources) of air pollution to obtain operating permits and form the legal bases for this permit. A source is major if it has the potential to emit 100 tons per year or more of any air pollutant subject to regulation, 25 tons per year or more of hazardous air pollutants (totalled) or 10 tons per year or more of any single hazardous air pollutant (see 40

CFR § 71.2). The facility is a major source subject to Title V because it has the potential to emit more than 100 tons per year of VOC not counting fugitive emissions (see Table 1 and Appendix A). Greenhouse gas potential emissions do not exceed the 100,000 ton-per-year CO₂ equivalent threshold to qualify as a pollutant subject to regulation.

The Title V operating permit serves as a comprehensive compilation of the air quality requirements that are applicable to a source. The permit also must assure compliance, so source-specific testing, monitoring, recordkeeping and reporting have been added where EPA believes it is necessary, as explained in Section 4.3 (Permit Conditions) of this Statement of Basis below.

Compliance Assurance Monitoring (CAM). CAM applies for emission units at time of Title V permit renewal that (a) are subject to an emission limit, (b) employ a control device to comply with the limit, and (c) have pre-control device PTE equal to or greater than the major source threshold defined in Title V (generally, 100 tons per year). See 40 CFR Part 64. Criteria (a) and (b) are satisfied as ELC employs a multiclone to achieve compliance with the FARR PM limit for combustion source stacks. BLR1, however, is not subject to CAM because BLR1's pre-control PTE is less than the 100 tpy Title V major source threshold. The following calculation supports determination that pre-control PTE equals 44 tpy:

$$\text{Pre-control PTE Emission Rate} = (\text{Post-Control Emission Rate}) \times [1 / (1 - \text{CE})]$$

where:

- Post-control emission rate = 0.04 lb/MMBtu based upon November 8, 2006 emissions testing of BLR1 with current multiclone installed.
- CE (control efficiency) = 88% based upon Boiler & Steam Systems, LLC general specifications for current multiclone installed on BLR1.

Solving for pre-control PTE emission rate:

$$\text{Pre-control PTE Emission Rate} = (0.04 \text{ lb/MMBtu}) \times [1 / (1 - 0.88)] = 0.33 \text{ lb/MMBtu}$$

Calculating pre-control PTE:

$$\begin{aligned} \text{Pre-control PTE} &= (0.33 \text{ lb/MMBtu}) \times (29.9 \text{ MMBtu/hr}) \times (8760 \text{ hr/yr}) \times (\text{ton}/2000 \text{ lb}) \\ &= 43.7 \text{ tpy} \end{aligned}$$

EPA understands that the multiclone may have been collecting PM at an efficiency greater than vendor guarantee of 88%. The greater the collection efficiency achieved during the November 8, 2006 test, the greater the pre-control PTE. In order for pre-control PTE to climb to 100 tpy, the multiclone would need to achieve a control efficiency of around 95%³. While technical literature suggests that a multiclone can achieve a 95% control efficiency for PM₅ (and we assume all PM here resulting from combustion of planer shavings is PM₅), that performance level is an upper bound. See page 5.1-20 of EPA's "Stationary Source Control Techniques Document for Fine Particulate Matter." EPA-452/R-97-001.

Prevention of Significant Deterioration (PSD). Under the PSD pre-construction permitting program found in Part C of the Clean Air Act and 40 CFR § 52.21, no "major stationary source" or "major modification" to a major stationary source can begin actual construction without first obtaining a PSD permit. The PSD program has been changed over the years, but in general, a major stationary source for purposes of the PSD program is a source with a PTE of more than 250 tons per year of any PSD pollutant. A modification is major if it results in emission increases greater than defined significance levels. Historical reviews of

³ Pre-control 100 tpy PTE = (Pre-control PTE emission rate) X (29.9 MMBtu/hr) X (8760 hr/yr) X (ton/2000 lb)

Solving for Pre-control PTE emission rate = (29.9 MMBtu/hr) X (8760 hr/yr) X (ton/2000 lb) X (1/100 tpy)

Pre-control PTE emission rate = 0.7636 lb/MMBtu

Pre-control PTE Emission Rate of 0.7636 lb/MMBtu = (0.04 lb/MMBtu) X [1 / (1 - CE)]

Solving for CE = (0.7636 lb/MMBtu - 0.04 lb/MMBtu) / 0.7636 lb/MMBtu

Solving for CE: 0.948

potential PSD projects are difficult due to the lack of specific details about the sources, their emissions and the various applicability requirements in previous PSD programs.

Based on the information available today, EPA is not aware of any modifications that would have been subject to PSD. EPA is not aware of any other modifications to the facility and does not draw any conclusions regarding compliance with past permitting requirements for this facility. Therefore, no permit shield is implied or explicit for past new source review or PSD requirements.

New Source Performance Standards (NSPS). Four NSPS subparts may apply to BLR1 (the gasifier and boiler are together one affected facility; a steam generating unit): 40 CFR § 60, Subparts D (Fossil-Fuel-Fired Steam Generators), Da (Electric Utility Steam Generating Units), Db (Industrial-Commercial-Institutional Steam Generating Units) and Dc (Small Industrial-Commercial-Institutional Steam Generating Units). Subparts D, Da and Db do not apply because the heat capacity of BLR1 is 29.9 MMBtu/hr, comfortably below the applicability thresholds of 100 (NSPS Db) and 250 MMBtu/hr (NSPS D and Da). Subpart Dc does apply because BLR1 was constructed after the June 9, 1989 applicability date.

The facility's inventory of above-ground petroleum liquids storage vessels is as follows: (1) 17,198 gallon (65.1 cubic meter) diesel tank, 2,456 gallon (9.3 cubic meter) gasoline tank, (3) 60 (0.2 cubic meter) gallon parts washer tank, (4) 1,487 gallon (5.6 cubic meter) lubes/oils tank and (5) 1,794 gallon (6.8 cubic meter) propane cylinder. Three NSPS subparts may apply to the storage vessels: 40 CFR § 60, Subparts K (Storage Vessels "Commenced" from 6/12/73 to 5/18/78), Ka (Storage Vessels "Commenced" from 5/19/78 to 7/22/84) and Kb (Storage Vessels "Commenced" after 7/23/84). While it is not clear when all tanks were installed, reconstructed or modified, Subparts K and Ka only apply to tanks larger than 40,000 gallons and Subpart Kb only applies to tanks larger than 75 cubic meters (20,000 gallons), so the tanks are not subject to NSPS.

Subpart A of 40 CFR Part 60 applies given that a source category-specific subpart (NSPS Dc for BLR1) applies. ELC is required to maintain and operate BLR1, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions at all times, including periods of startup, shutdown and malfunction. ELC is required to maintain records of (a) the occurrence and duration of any startup, shutdown or malfunction in the operation of BLR1, (b) any malfunction of BLR1 air pollution control equipment, and (c) any periods during which a continuous monitoring system or monitoring device serving BLR1 is inoperative. Other general provisions related to the affected facility, BLR1, apply but are not listed here.

National Emission Standards for Hazardous Air Pollutants (NESHAP). With a few exceptions, MACT standards promulgated under 40 CFR Part 63 apply to "major sources" of HAP. Section 112(a)(1) and 40 CFR § 63.2 define a "major source" as a stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit considering controls in the aggregate, 10 tons per year or more of any HAP or 25 tons per year or more of any combination of HAP. There are at least two MACT standards that might be applicable to ELC operations if major for HAP: Subparts DDDDD (Industrial, Commercial and Institutional Boilers and Process Heaters at Major Sources) and DDDD (Plywood and Composite Wood Products Manufacture – includes lumber kilns). The compliance dates for the two MACT standards are January 31, 2016 and October 1, 2007, respectively.

Potential HAP emissions from ELC operations are estimated to be approximately 23 tons per year, combined. The PTE of methanol, the individual HAP emitted in greatest quantity, is estimated to be 9 tons per year. See emissions inventory in Appendix A. The facility is considered a "natural" minor (aka area) HAP source; no "artificial" emissions or operational limits are necessary to reduce potential emissions below major source thresholds.

EPA has recently finalized a MACT standard that applies to boilers at area (non-major) HAP sources. The regulation is codified at 40 CFR § 63, Subpart JJJJJ - Industrial, Commercial, and Institutional Boilers for Area Sources. BLR1 (both the gasifier and boiler together as one) is the affected source: a biomass boiler. Given that ELC does not operate an energy management program compatible with ISO 50001, ELC was required to have conducted a one-time energy assessment of BLR1 and KLN by March 21, 2014. ELC was also required to have tuned BLR1 by that same deadline. Because ELC has installed and is operating an oxygen trim system, ELC is required to tune BLR1 every five years (from latest tune-up) as opposed to every two years were it not operating the combustion-optimizing system. The requirement to tune the boiler every two years does not appear in the permit as it is not applicable under the circumstances. Also not appearing in the permit is the applicable requirement in 40 CFR § 63.11225(a)(2) to submit a NESHAP JJJJJ initial notification. That reporting requirement has already been satisfied and is thus obsolete.

Section 111(d) and Section 129 Regulations. There are no CAA, Section 111(d) or 129 regulations that apply to the type of emission units at the facility. Biomass combustion in a boiler is not considered solid waste or municipal waste combustion or incineration.

Federal Air Rules for Reservations (FARR). On April 8, 2005, EPA promulgated a Federal Implementation Plan (FIP) for Reservations in Idaho, Oregon and Washington. This FIP is commonly referred to as the Federal Air Rules for Reservations (FARR). EPA published the FARR rules that generally apply to Indian Reservations in EPA Region 10 in 40 CFR § 49.121 to § 49.139. The FARR rules that specifically apply on the 1863 Nez Perce Reservation are codified at 40 CFR § 49.10401 to § 49.10411. Those FARR requirements that apply to the permittee and have been included in the permit are discussed in Section 4.3 of this document. Several requirements of the FARR that are in effect on the Nez Perce Reservation do not apply to ELC's mill. Table 4-1 below lists the FARR requirements that do not apply to the permittee and explains why.

Table 4-1 – Inapplicable FARR Requirements

Citation	Description	Reason Inapplicable
49.125(d)(1)	Limits particulate matter emissions from combustors except wood-fired boilers and exempts furnaces used exclusively for space heating with a rated heat input capacity of less than 400,000 Btu/hr.	The wood-fired boiler is excepted because it burns only wood.
49.127	Rules that apply to wood waste burners (wigwam burners)	No wigwam burners exist at the facility
49.128	Rules that apply to wood veneer, plywood, particleboard and hardboard manufacturing	The facility does not produce any of the products listed
49.129(d)(2)	Limits SO ₂ from process source stacks	None of facility's processes emit SO ₂
49.130(d)(1), (3-6) and (8)	Limits amount of sulfur in coal and gaseous fuels	The facility combusts only wood waste in boiler.
49.130(f)(1)(ii)	Additional requirements that apply to gaseous fuels	The facility combusts only wood waste in boiler..
49.135	Restricts emissions determined to be detrimental to human health or welfare	Actual requirements will result from EPA's determination and subsequent permits or orders that address an issue

Acid Rain Program. Title IV of the CAA created a SO₂ and NO_x reduction program found in 40 CFR Part 72. The program applies to any facility that includes one or more “affected units” that produce power. BLR1 is not a “unit” as defined in 40 CFR § 72.2 because it does not combust a fossil fuel.

Mandatory Greenhouse Gas Reporting Rule. This rule requires sources above certain emission thresholds to calculate, monitor, and report greenhouse gas emissions. According to the definition of "applicable requirement" in 40 CFR § 71.2, neither 40 CFR part 98, nor CAA §307(d)(1)(V), the CAA authority under which 40 CFR part 98 was promulgated, are listed as applicable requirements for the purpose of Title V permitting. Although the rule is not an applicable requirement under 40 CFR part 71, the source is not relieved from the requirement to comply with the rule separately from compliance with their part 71 operating permit. It is the responsibility of each source to determine applicability to part 98 and to comply, if necessary.

4.2 Other Federal Requirements

EPA Trust Responsibility. As part of the EPA Region 10’s direct federal implementation and oversight responsibilities, EPA Region 10 has a trust responsibility to each of the 271 federally recognized Indian tribes within the Pacific Northwest and Alaska. The trust responsibility stems from various legal authorities including the U.S. Constitution, Treaties, statutes, executive orders, historical relations with Indian tribes, and in this case the Nez Perce Treaty of 1863. In general terms, EPA is charged with considering the interest of tribes in planning and decision making processes. Each office within EPA is mandated to establish procedures for regular and meaningful consultation and collaboration with Indian tribal governments in the development of EPA decisions that have tribal implications. EPA Region 10’s Office of Air, Waste and Toxics has contacted the Nez Perce Tribe to invite consultation on the ELC Title V operating permit renewal application.

Endangered Species Act (ESA). Under this act, EPA is obligated to consider the impact that a federal project may have on listed species or critical habitats. It is EPA’s conclusion that the issuance of this Title V permit will not affect a listed species or critical habitat because it does not authorize new emissions units, increase existing emission limits or impose any new work practice requirements. Therefore, no additional analysis and no additional requirements will be added to this permit for ESA reasons. EPA’s no-effect determination concludes EPA’s obligations under Section 7 of the ESA. For more information about EPA’s obligations, see the Endangered Species Consultation Handbook: Procedures for Conducting Consultation and Conference Activities under Section 7 of the Endangered Species Act, published by the FWS and NMFS (March 1998, Figure 1).

National Environmental Policy Act (NEPA). Under Section 793(c) of the Energy Supply and Environmental Coordination Act of 1974, no action taken under the Clean Air Act shall be deemed a major Federal action significantly affecting the quality of the human environment within the meaning of the National Environmental Policy Act of 1969. This permit is an action taken under regulations implementing the Clean Air Act and is therefore exempt from NEPA.

National Historic Preservation Act (NHPA). As noted earlier, the issuance of this Title V permit does not authorize new emissions units, increase existing emission limits or impose any new work practice requirements. No changes to the facility are expected as a result of this permit action. Consequently, no adverse effects are expected, and further review under NHPA is not indicated.

Environmental Justice (EJ) Policy - Under Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, signed on February 11, 1994, EPA is directed, to the greatest extent practicable and permitted by law, to make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations in the United States. This permit action does not allow

new or additional emissions and therefore impacts. As a result, there is no information available that indicates that there are disproportionately high and adverse impacts to a minority or low-income population.

4.3 Permit Conditions

This Title V operating permit compiles all of the applicable requirements that apply to the permittee. Additional monitoring, recordkeeping and reporting requirements have been created where needed so the permit assures compliance with all of the applicable requirements. In general, each permit condition in the permit is explained below. Certain permit conditions are self-explanatory, and thus are not further discussed. The permit is organized into the following eight sections:

- Permit Section 1: Source Information and Emission Units
- Permit Section 2: Standard Terms and Conditions
- Permit Section 3: General Requirements
- Permit Section 4: Facility-Specific Requirements
- Permit Section 5: Unit-Specific Requirements – BLR1 (Biomass Gasifier and Boiler)
- Permit Section 6: Unit-Specific Requirements – KLN (Lumber Drying Kilns)
- Permit Section 7: Unit-Specific Requirements – CYC (Wood Residue Cyclones and Target Boxes) P12, P13 and P34
- Permit Section 8: Unit-Specific Requirements – CYC (Wood Residue Cyclones and Target Boxes) P8, P9, P10, P11, P18, P19 and P20
- Permit Section 9: Unit-Specific Requirements – MNFA (Miscellaneous Non-Fugitive Activities)

Permit Section 1 – Source Information and Emission Units

This permit section contains a brief description of the facility and a list of emission units. A more detailed description of the facility can be found in Section 2 of this Statement of Basis.

Permit Section 2 – Standard Terms and Conditions

This permit section includes generic compliance terms that are required in all Title V permits, but are not subject to the annual compliance certification requirements found in Permit Condition 3.49.

Permit Condition 2.1 explains that the language in the underlying regulations takes precedence over paraphrased language in the permit. Some applicable requirements are paraphrased in the permit with the intention of clarifying the requirement, but with no intention of changing the underlying meaning of the requirement. Where there is a difference between the language in a permit and an underlying regulation, the wording in the underlying regulation should be used to interpret and implement the requirement. This permit condition also notes some underlying authorities that may have been used to create additional requirements in this permit.

Permit Conditions 2.4 and 2.5 address a general permit shield which states that compliance with the permit is deemed compliance with the applicable requirements listed in the permit. The permittee is responsible for complying with any applicable requirements that exist but have not been included in the permit. The permittee did not request a specific permit shield for any specific requirement excluded from this permit and none is being granted.

Permit Conditions 2.12 through 2.14 address the expiration of the permit and the ramifications if the permittee does or does not renew their permit. It is important to note that, if the permittee does not submit a complete and timely renewal application, the permittee's right to operate is terminated. The expiration date of the permit is listed on the top right-hand corner of the front page of the permit. Specific requirements regarding permit renewal are in Permit Conditions 3.51 and 3.52.

Permit Conditions 2.15 through 2.17 address options for making certain physical and operational changes in the facility that do not require a permit modification. If the permittee uses any of these options, they must comply with the applicable recordkeeping requirement found in Permit Condition 3.32 and reporting requirements found in Permit Conditions 3.38 and 3.39.

Permit Section 3 – General Requirements

This permit section includes conditions that are required in all Title V permits. In some cases, facility-specific testing, monitoring, recordkeeping and reporting requirements for these permit conditions might be found in Section 4 of the permit because those requirements can vary from permit to permit. Unless otherwise specified, emission units are subject to the general requirements in Section 3 of the permit as well as the facility-specific and unit-specific requirements in Sections 4 and 5.

Permit Conditions 3.1 and 3.2 are general compliance schedule requirements. Because EPA is not aware of any non-compliance at the time of permit issuance, there is no issue-specific compliance schedule in Section 4 of the permit.

Permit Condition 3.3 requires the permittee to allow EPA-authorized representatives access to the facility and required records.

Permit Conditions 3.4 through 3.8 restrict open burning wherever the FARR applies including at industrial facilities. If the permittee performs any open burning, recordkeeping requirements specific to open burning found in Permit Condition 3.33 will apply.

Permit Conditions 3.9 through 3.11 limit visible emissions, require the use of either Reference Method 9 or a continuous opacity monitoring system (COMS) for determining compliance with the limit, and provide exceptions to the rule. Condition 3.9.1 enables the facility to employ Reference Method 9 simultaneously for up to three emission points if certain conditions are satisfied. Condition 3.9.1 was written at the request of the facility, and the alternative testing procedure was modeled after language appearing in an April 20, 1999 EPA memorandum entitled, “Alternative Testing Procedure for Application of Method 9 to Multiple Emission Points under 40 CFR § 60, Subparts LL and OOO.”

Reference Method 9 includes specific guidance for reading opacity when there is a wet plume (both attached and detached) and directs the observer to take readings excluding the portion of the plume that includes uncombined water (droplets). In the vast majority of cases, the likelihood of exceeding the 20% opacity limit due to the presence of uncombined water is very low because an experienced observer would know that he/she should not read that portion of the plume. However, there are meteorological conditions that can prevent uncombined water (droplets) from completely evaporating in a plume (e.g., 100% relative humidity and a saturated plume). The provision in Permit Condition 3.11 addresses that situation. Currently, this facility does not use (and is not required to use) a COMS to monitor visible emissions.

Because testing, monitoring, recordkeeping and reporting for assuring compliance with the visible emission limit can change based on the emission unit in question, the testing, monitoring, recordkeeping and reporting requirements are contained in the facility-specific requirements in Section 4 of the permit, or in each emission unit-specific section, as appropriate. The general monitoring, recordkeeping and reporting for this requirement is the periodic visible emissions survey (plant walkthrough) specified in Permit Conditions 4.4 through 4.11.

Permit Conditions 3.12 through 3.17 restrict fugitive particulate matter emissions and require a plan be created to assure the use of reasonable precautions to prevent fugitive emissions. The plan is based on a survey of the facility and is updated annually. This annual survey can be accomplished simultaneously with the periodic visible emission survey requirement in Permit Conditions 4.4 through 4.11, as long as both requirements are fully complied with.

Permit Condition 3.18 addresses requirements in the Chemical Accident Prevention Program found in 40 CFR Part 68. This program requires sources that use or store regulated substances above a certain threshold to develop plans to prevent accidental releases. Based on information in their application, there are no regulated substances above the threshold quantities in this rule at this facility; therefore, the facility is not currently subject to the requirement to develop and submit a risk management plan. However, this requirement is included in the permit as an applicable requirement because the permittee has an ongoing responsibility to submit a risk management plan if a substance is listed that the facility has in quantities over the threshold amount, or if the facility ever increases the amount of any regulated substance above the threshold quantity. Including this term in the permit minimizes the need to reopen the permit if the facility becomes subject to the requirement to submit a risk management plan.

Permit Conditions 3.19 and 3.20 address the Stratospheric Ozone and Climate Protection Program found in 40 CFR Part 82. This program requires sources that handle regulated materials to meet certain procedural and certification requirements. There may be equipment at the facility that uses or contains chlorofluorocarbons (CFCs) or other materials regulated under this program. All air conditioning and refrigeration units must be maintained by certified individuals if they contain regulated materials.

Permit Condition 3.21 addresses asbestos demolition or renovation activity found in 40 CFR Part 61, Subpart M (NESHAP). This program requires sources that handle asbestos-containing materials to follow specific procedures. If the permittee conducts any demolition or renovation activity at their facility, they must assure that the project is in compliance with the federal rules governing asbestos, including the requirement to conduct an inspection for the presence of asbestos. This requirement is in the permit to address any demolition or renovation activity that may occur at the facility.

Permit Conditions 3.22 through 3.30 specify the procedures that must be followed whenever the permit requires emissions testing or stack sampling in an emission unit-specific section of the permit. If there is a conflict between these permit conditions and an emission unit-specific permit condition, the specific permit condition should be followed. Concentration-based emission limits required to be corrected to a specific oxygen concentration in the flue gas often do not contain a protocol to convert measured concentrations to specified oxygen levels. Permit Condition 3.28 provides a protocol for such a conversion. Permit Condition 3.30 requires the facility to submit an emission test report to EPA within 60 days of completing the emission test. Part 71 permits issued to similar sources have typically provided sources only 45 days (after completing test) to submit the report. According to the permittee, the additional 15 days is needed for the stack test company to complete analyses and document the results and enables the facility to review the draft report, finalize it with the tester, certify the report, and submit it. EPA will consider extending the emission test report deadline for other Part 71 sources for the sake of maintaining uniformity.

Permit Condition 3.31 describes general recordkeeping that has been added to the permit using Part 71 authority to assure that there is good documentation for any monitoring that the permittee performs.

Permit Condition 3.32 describes recordkeeping requirements that apply only if the permittee makes off-permit changes. Certain off-permit changes are allowed in Permit Condition 2.15.

Permit Condition 3.33 describes recordkeeping requirements that apply if the permittee performs open burning. The open burning recordkeeping was added using Part 71 authority. Open burning is restricted in Permit Conditions 3.4 through 3.8.

Permit Condition 3.34 includes recordkeeping that applies to fee records including the duration that the records must be maintained. The duration is consistent with that required by Title V (see Permit Condition 3.35).

Permit Condition 3.35 sets the duration that records must be maintained. Both Title V and FARR records must be maintained for five years. These two requirements have been combined (streamlined) into one

permit condition. If there is ever a conflict between these requirements and a more restrictive emission unit-specific permit condition, the specific permit condition should be followed.

Permit Conditions 3.36 and 3.37 require the permittee to submit or correct submitted information when requested by EPA and as needed. The permittee has an ongoing obligation to assure that all data in its Title V application is correct and to notify EPA of any errors or omissions.

Permit Conditions 3.38 and 3.39 describe reporting requirements that apply only if the permittee makes off-permit changes (Permit Condition 3.38) or section 502(b)(10) changes (Permit Condition 3.39). Certain off-permit changes are allowed in Permit Condition 2.15. Section 502(b)(10) changes are allowed in Permit Conditions 2.16.

Permit Condition 3.40 includes the address for submittals to EPA Region 10. All reports and notices, except for fee payments (see Permit Condition 3.43), should be sent to this address. Copies of each document sent to EPA should be sent to the Tribal Air Quality Coordinator.

Permit Conditions 3.41 through 3.45 require submittal of an annual emission inventory (of actual emissions) and payment of fees for Part 71 purposes. These requirements refer to Permit Condition 4.1 for the actual due date by which fees and emissions must be submitted each year. The per-ton fee rate varies each year; the permittee should contact EPA to obtain the current rate. The submittal of the emission inventory is timed to coincide with the payment of fees because annual Title V fees are based on actual emissions generated during the previous calendar year. Appendix A to this statement of basis documents the methods, techniques, and assumptions that EPA believes provide the most accurate basis for estimating actual emissions for this facility. As explained in Section 3.2 of this statement of basis, the emission estimation techniques listed in this statement of basis should be used to calculate the annual emissions inventory, unless the permittee has other information showing why another technique more accurately represents emissions. Also note that the actual emission estimates differ from the facility's PTE because actual emissions are calculated based on actual operations, not maximum operational capacity.

Note that the FARR emission inventory required in Permit Condition 3.46 to be reported at the same time can be combined with the Part 71 emission inventory as long as it is clear which emissions inventory is for which purpose, because the pollutant lists for each emission inventory are slightly different.

At this time, greenhouse gases (GHG) are neither regulated air pollutants nor regulated air pollutants (for fee calculation) as those terms are defined at 40 CFR § 71.2. The permittee is not required to pay Title V fees on its GHG emissions.

Permit Condition 3.46 requires submittal of an annual emission inventory (of actual emissions) for FARR registration purposes. Appendix A to this statement of basis documents the methods, techniques, and assumptions that EPA believes provide the most accurate basis for estimating actual emissions for this facility. As explained in Section 3.2 of this statement of basis, the emission estimation techniques listed in this statement of basis should be used to calculate the annual emissions inventory, unless the permittee has other information showing why another technique more accurately represents emissions. Also note that the actual emission estimates differ from the facility's PTE because actual emissions are calculated based on actual operations, not maximum operational capacity.

Note that the FARR emission inventory is required to be submitted at the same time as the Part 71 fees and emission inventory required in Permit Conditions 3.41 through 3.45. The Part 71 and FARR emission inventories can be combined as long as it is clear which emissions inventory is for which purpose, because the pollutant lists for each emission inventory are slightly different.

Permit Conditions 3.47 and 3.48 require semi-annual monitoring reports and prompt deviation reports. Determinations of deviations, continuous or intermittent compliance status, or violations of the permit are

not limited to the testing or monitoring methods required by the underlying regulations or this permit. Failure to meet any permit term or permit condition, including emission standards, is considered a deviation. Other credible evidence (including any evidence admissible under the federal rules of evidence) must be considered by the source and EPA in such determinations. The timing for reporting deviations, as well as other data collected, depends on the circumstances, as explained in these permit conditions. The two six-month reporting periods were changed from (a) April 1 to September 30 and October 1 to March 31 to (b) January 1 to June 30 and July 1 to December 31 in the permit renewal in an effort by EPA to make all of the Title V permits consistent. The deadline for submitting the semiannual monitoring report was changed from the 30th day to the 60th day following the end of the reporting period as the permittee explained that a) winter reports come during a period when many annual reports are also due, and b) summer reports come during periods of maximum on-the-ground activity. In making the decision to extend the reporting deadline, EPA also took into consideration the fact that the Part 71 renewal permit contains significantly more monitoring requirements to report on as compared to the previous permit. EPA will consider extending the emission test report deadline for other Part 71 sources for the sake of maintaining uniformity.

With respect to the requirement to report deviations within 48 hours of occurrence for any regulated pollutant emitted for more than two hours in excess of permit requirements, note that particulate matter is a Title V regulated pollutant and opacity limits are permit requirements. It logically follows that generating visible emissions (consisting of particulate matter) in excess of opacity limits for more than two hours triggers the requirement to report the deviation to EPA within 48 hours of the occurrence.

Permit Condition 3.49 requires an annual compliance certification. The permittee must certify compliance with the permit conditions in sections 3 through 10. The permittee does not need to annually certify compliance with the provisions in permit sections 1 or 2. Consistent with Permit Condition 2.6, however, if a permittee is aware of any information that indicates noncompliance, that information must be included in the annual compliance certification. In a year when the permit is renewed or revised, the permittee must address each permit for the time that permit was in effect. The deadline for the annual compliance certification has changed from August 8 to February 28 in the permit renewal in an effort by EPA to make all of the Title V permits consistent. Forms for the annual compliance certifications may be obtained on the internet at:

<http://www.epa.gov/air/oaqps/permits/p71forms.html>.

Permit Condition 3.50 requires the permittee to certify the truth, accuracy and completeness of all documents (notices, reports, data, etc) submitted to EPA. The certification must be signed by a responsible official as defined in 40 CFR § 71.2. The facility's responsible officials are listed on the first page of the permit. The permittee should request an administrative amendment of the permit if the responsible official for the facility changes.

Permit Conditions 3.51 through 3.52 require the permittee to submit an application for renewal and describe some of the information that must be included in the application. As explained in Permit Conditions 2.12 through 2.14, failure to submit a complete application on time terminates the permittee's right to operate. The expiration date of the permit is listed on the top right-hand corner of the front page of the permit.

Permit Section 4 – Facility-Specific Requirements

This permit section includes applicable requirements and related testing, monitoring, recordkeeping and reporting that apply either to multiple emission units or on a facility-specific basis. Unless otherwise specified, emission units are subject to the facility-specific requirements in Section 4 of the permit as well as the general and unit-specific requirements in Sections 3 and 5 through 9 of the permit.

Permit Condition 4.1 lists the due date for the annual fees and emission reports required in Permit Conditions 3.41 through 3.46.

Permit Conditions 4.2 and 4.3 limit the sulfur content of the solid fuel burned in any combustion device, specify the method for determining compliance and specify the monitoring and recordkeeping. The facility burns only wood residue in the gasifier. The underlying rule allows the permittee to simply keep records showing that only wood residue is burned because naturally occurring sulfur content of wood waste is normally much less than the limit of 2% by weight.

Permit Conditions 4.4 through 4.11 require a quarterly survey (also called a plant walkthrough) for visible and fugitive emissions as well as specific follow-up steps (investigation, corrective action, RM9 observation and additional recordkeeping and reporting) if visible or fugitive emissions are observed. If observed visible or fugitive emissions can not be eliminated within 24 hours, a tiered sequence of RM9 opacity determinations must be performed beginning with an initial 30-minute period of readings every 15 seconds. The frequency (e.g. daily or weekly) for conducting follow-up RM9 opacity readings is based upon whether any 6-minute average opacity exceeds 20%. Observations of visible or fugitive emissions during a survey are not considered deviations; however, any resulting RM9 6-minute average opacity determination above 20% is considered a permit deviation pursuant to Permit Conditions 3.47 and 3.48. The annual fugitive particulate matter survey required in Permit Condition 3.13 can be accomplished simultaneously with a quarterly survey required in this permit condition as long as both requirements are fully complied with. This permit condition serves as the periodic monitoring for several fugitive and particulate matter limits found in the permit. This requirement applies to emission sources that normally do not exhibit visible or fugitive emissions. If the permittee prefers a specific periodic monitoring approach for any emission sources subject to this requirement, the permittee can propose a new approach as a permit modification. See boiler and cyclone/target box periodic visible emission monitoring requirements in Permit Conditions 5.9 and 8.2 for examples.

Permit Condition 4.12 requires permits for open burning, agricultural burning and forestry/silvicultural burning. These requirements are in effect on the Nez Perce Reservation only.

Permit Conditions 4.13 through 4.16. EPA has placed area source boiler MACT (NESHAP Subpart JJJJJ) requirements in the section of the permit reserved for facility-specific requirements, and not emission unit-specific requirements. This is because the area source boiler MACT requirements extend beyond BLR1. They extend, for instance, to energy use systems like KLN.

The facility combusts in BLR1 only material satisfying the definition of biomass as that term is defined at 40 CFR § 63.11237. Biomass means any biomass-based solid fuel that is not a solid waste. This includes, but is not limited to, wood residue and wood products (e.g., trees, tree stumps, tree limbs, bark, lumber, sawdust, sander dust, chips, scraps, slabs, millings, and shavings); animal manure, including litter and other bedding materials; vegetative agricultural and silvicultural materials, such as logging residues (slash), nut and grain hulls and chaff (e.g., almond, walnut, peanut, rice, and wheat), bagasse, orchard prunings, corn stalks, coffee bean hulls and grounds. This definition of biomass is not intended to suggest that these materials are or are not solid waste as that term is defined at 40 CFR § 241.2. Because BLR1 combusts only biomass, it is in the NESHAP Subpart JJJJJ biomass subcategory of boilers pursuant to 40 CFR § 63.11200(b). It is with this in mind that EPA Region 10 created permit terms reflecting NESHAP Subpart JJJJJ requirements.

Permit Condition 4.13. Existing biomass boilers are subject to periodic tune-up management practices for PM (surrogate for urban metal HAP) and CO (surrogate for urban organic HAP) based upon finding that periodic tune-ups represent generally available control technology (GACT), (78 FR 7489, February 1, 2013). An oxygen trim system, according to 40 CFR § 63.11237, means a system of monitors that is used to maintain excess air at the desired level in a combustion device. A typical system consists of a flue gas oxygen and/or carbon monoxide monitor that automatically provides a feedback signal to the combustion

air controller. Whereas boilers not employing an oxygen trim system are required to undergo a tune-up once every two years, the tune-up frequency is relaxed to once every five years for boilers employing said system. The facility indicates that BLR1 employs an oxygen trim system. The NESHAP Subpart JJJJJ tune-up requirements at 40 CFR § 63.11223(b)(1) and (2) related to inspection of burner and flame pattern would not normally apply to a biomass boiler because most do not employ a burner. But in the case of the boiler section for BLR1, it does. The gas produced by the gasifier is introduced to the boiler through a burner where, upon mixing with air, a distinct flame is created. The facility employs a fuel chute to introduce biomass into the gasifier.

Permit Conditions 4.14 and 4.15. BLR1 is subject to a beyond-the-floor control technology or GACT requirement to conduct an energy assessment, (76 FR 15573, March 21, 2011). Because the facility's annual heat input capacity is less than the 0.3 trillion Btu threshold value, the duration of the energy assessment will be up to eight on-site technical labor hours pursuant to the definition of energy assessment at 40 CFR § 63.11237.⁴ This length of time may be extended at the discretion of the source. EPA has not established a minimum value for the amount of time necessary to conduct on-site technical labor.

The requirement to evaluate systems to identify energy savings opportunities extends to the boiler system and any energy use system (under the control of the source) that accounts for at least 50 percent of the boiler's energy (e.g., steam, hot water, or electricity). See definition of energy assessment at 40 CFR § 63.11237 for facilities with affected boilers with heat input less than 0.3 trillion Btu per year. The energy use systems serving as the basis for the percent of affected boiler energy production may be segmented by production area or energy use area as most logical and applicable to the source. The term boiler system, as defined in 40 CFR § 63.11237 means the boiler and associated components, such as feedwater systems, combustion air systems, fuel systems, blowdown systems, combustion control systems, steam systems, and condensate return systems, directly connected to and serving the energy use systems. Similarly, the term energy use system includes any of the following systems located at the CAA Section 112 stationary source that use energy provided by the boiler: (a) process heating; compressed air systems; machine drive (motor, pumps, fans); process cooling; facility heating, ventilation, and air conditioning systems; hot water systems; building envelope; and lighting; or (b) other systems that use steam, hot water, process heat, or electricity, provided by the boiler. Energy use systems are only those systems using energy clearly produced by the boiler either (a) directly as steam or process heat, or (b) through an associated steam turbine generator in the form of electricity.

BLR1 generates steam that is distributed solely to its lumber drying energy use system KLN consisting of five kilns (P14, P15, P16, P31 and P32). The equipment and operation of all five kilns are either identical or substantially similar. An energy assessment of one kiln would be carried out in much the same way as the energy assessment for another. Conducting an energy assessment of all five kilns is limited in scope, an effort that is neither disjointed nor unwieldy as cautioned against by EPA in responding to comments for the national rulemaking in December 2012.

A source operating under an energy management program compatible with ISO 50001 is not required to conduct an energy assessment. An energy management program, as defined at 40 CFR § 63.11237, means a program that includes a set of practices and procedures designed to manage energy use that are demonstrated by the facility's energy policies, a facility energy manager and other staffing responsibilities, energy performance measurement and tracking methods, and energy saving goal, action plans, operating procedures, internal reporting requirements, and periodic review intervals used at the facility. Facilities may establish their program through energy management systems compatible with ISO 50001.

⁴ BLR1's annual heat input capacity of 0.26 TBtu = (29.9 MMBtu/hr) X (8,760 hr/yr) X (1 TBtu/1x10⁶ MMBtu)

Permit Condition 4.16. The following sentence appears in Condition 4.16, “The general duty to minimize emissions does not require the permittee to make any further efforts to reduce emissions if levels required by this standard have been achieved.” Because BLR1 is not subject to an emission limitation, there is no “level” for emissions to be reduced by. Achieving compliance with general duty to minimize emissions goes beyond complying with tune-up and energy assessment requirements of Conditions 4.13 through 4.15. Compliance with this requirement will be determined, in part, based upon inspection of records created and maintained by the permittee to comply with 40 CFR §§ 63.10(b)(2)(iii), 63.11223(b)(6) and 63.11225(c)(4) and (5).

Permit Conditions 4.17 through 4.20. The permittee is required to conduct monitoring and maintain records to document compliance with GACT work practice standards and emission reduction measures. The permittee is also required to document that when it combusts biomass that is considered a non-hazardous secondary material as that term is defined at 40 CFR § 241.2, that it is combusting a fuel and not a solid waste.⁵

Permit Condition 4.17. The requirement to measure and record boiler exhaust stack CO concentration is satisfied if measurements are taken before and after the performance tune-up. It is not necessary to take measurements between interim tasks in the tune-up process.

Permit Condition 4.18. Should the permittee choose to operate in accordance with an energy management program so as to comply with Condition 4.14.2, Condition 4.18 requires the permittee to, among other things, maintain records that document facility’s energy management program and how it is compatible with ISO 50001.

Permit Condition 4.20. The following background about the different biomass streams that could potentially be combusted in BLR1 provides some context for Condition 4.20. EPA understands that the facility primarily combusts in BLR1 biomass generated on-site. This clean cellulosic biomass is considered a traditional fuel as those terms are defined at 40 CFR § 241.2. The permittee infrequently combusts biomass that is generated off-site and received at the facility via truck delivery. Whether this off-site material is considered clean cellulosic material or non-hazardous secondary material would need to be determined on a load-by-load basis.

Permit Conditions 4.20.1 and 4.20.2. These permit conditions refer to legitimacy criteria that must be satisfied in order to consider non-hazardous secondary material to be a fuel.

Permit Condition 4.20.3. This permit condition refers to a petition process whereby the Regional Administrator may grant a non-waste determination that a non-hazardous secondary material that is used as a fuel, which is not managed within the control of the generator, is not discarded and is not a solid waste when combusted pursuant to 40 CFR § 241.3(c).

Permit Condition 4.20.4. The facility does not combust any of the materials that EPA has listed as non-waste under 40 CFR § 241.4(a).

Permit Condition 4.21. The underlying NESHAP Subpart JJJJJ requirement at 40 CFR §63.11223(b)(6) requires the permittee to track certain tune-up related information and to submit it to the EPA if requested. EPA is choosing in this permitting action to require the permittee to submit certain tune-up related information as part of the semi-annual monitoring reports required by Condition 3.47.

⁵ When EPA refers to secondary materials in this context, EPA means any material that is not the primary product of a manufacturing or commercial process, and can include post-consumer material, off-specification commercial chemical products or manufacturing chemical intermediates, post-industrial material, and scrap. A non-hazardous secondary material is a secondary material that, when discarded, would not be identified as a hazardous waste under 40 CFR § 261.

The requirement in 40 CFR § 63.11223(b)(6)(iii) to track the type and amount of fuel used over the 12 months prior to the tune-up would have appeared as an element of Permit Condition 4.21, but the requirement does not apply to BLR1 because it combusts only biomass. It is not physically capable of using any other type of fuel listed at 40 CFR § 63.11200.

Permit Condition 4.22. The permittee is required to submit its NESHAP Subpart JJJJJ Notification of Compliance Status (NOCS) to EPA electronically through CDX pursuant to 40 CFR § 63.11225(a)(4). EPA is not providing the permittee the opportunity to submit the NOCS through some other mechanism given that the CEDRI NESHAP Subpart JJJJJ-specific reporting form is now available.

Permit Condition 4.23. EPA is utilizing its streamlining authority under 40 CFR § 71.6(a)(3)(i)(A) and its discretion under 40 CFR § 63.11225(b) to require the permittee to submit a NESHAP Subpart JJJJJ compliance certification report to EPA each year by February 28 (rather than March 15) for the previous year's operations.

Permit Conditions 4.26 and 4.27. The PSD regulation applicability test for modifications was changed in December 2002. The rule change resulted in a new applicable requirement for PSD major sources. Although EPA does not believe the facility to be a PSD major source based upon our current knowledge of the facility's emissions, our understanding may change as our knowledge of its emissions improves. Therefore, this term is included in the operating permit. In summary, when the permittee considers a plant modification project to be exempt from PSD via the method specified in 40 CFR § 52.21(b)(41)(ii)(a-c) and there is a reasonable possibility that there will be a significant emissions increase resulting from the project, then the permittee must fulfill specified requirements related to documentation, monitoring, and notification. This term will be relevant to the facility only when the permittee is contemplating making physical or operational changes to the facility. In those instances it is strongly recommended that the permittee contact EPA to discuss their plans and verify their assumptions.

Permit Section 5 – Unit-Specific Requirements – BLR1 (Biomass Gasifier and Boiler)

Permit Condition 5.1 limits the particulate matter (PM) emissions from the boiler stack to 0.2 gr/dscf at 7% O₂ and describes the emission testing method for determining compliance. Because BLR1 (the gasifier and boiler are together one emission unit) is considered a wood-fired boiler in the context of the FARR, the PM limit for wood-fired boilers applies.

Permit Condition 5.2 limits the sulfur dioxide (SO₂) emissions from the boiler stack and describes the emission testing methods for determining compliance. As BLR1 only uses wood waste as fuel, SO₂ emissions are expected to be well below the emission limit.

Permit Condition 5.3 requires that gas produced by the gasifier be combusted in the boiler at all times and that boiler exhaust be vented to the multiclone at all times to assure compliance with the FARR PM limit for wood-fired boilers. The permittee has not demonstrated that gasifier pressure relief stack emissions comply with the limit. The November 8, 2006 testing revealed a post-control PM emission rate of 0.04 lb/MMBtu. That is approximately 10% of the FARR PM limit. If the multiclone was capturing 90% of the PM during the test (a reasonable assumption), then the pre-control PM emissions would be approximately 0.4 lb/MMBtu. This is roughly equivalent to the FARR PM limit of 0.2 gr/dscf. This requirement ensures the emission control device is used and will be considered when estimating PTE for BLR1.

Permit Condition 5.4 requires the boiler control device to be maintained. Consistent with the requirement to ensure boiler emissions are controlled at all times, this requirement ensures the control device is operating correctly and hopefully that the boiler stays in compliance with the particulate matter and visible emission limits.

Permit Condition 5.5 is the NSPS general provisions requirement to implement good air pollution control practices. This requirement applies to operation of BLR1 even though the steam generating unit is not subject to an NSPS Subpart Dc emission limit or opacity standard.

Permit Condition 5.6 is the NSPS general provisions circumvention provision.

Permit Conditions 5.7 and 5.8 require measurement of particulate matter emissions. The boiler was last tested to determine PM emissions on November 8, 2006. Emission rates at 10% of the FARR PM limit were measured over three 60-minute runs. The permit requires the permittee to test BLR1 to determine PM emissions within 120 days of permit issuance. The schedule for additional testing after that depends on the results of the initial test. If emissions (as measured during the initial test) are less than one-half the FARR PM limit, no additional testing is required for the remainder of the permit term. During each test run, visible emissions must be measured and all periodic monitoring required by the permit (including steam production) must be recorded. For each test run, fuel sampling and analysis must be conducted to determine heat content and concentrations for the following constituents (dry basis): moisture, ash, carbon, hydrogen, nitrogen, sulfur and oxygen. With the data required to be gathered, the permittee can determine the fuel F-factor and BLR1's fuel-heat-input-to-steam-output ratio for each run. A 3-run average ratio can then be employed to determine actual emissions (for Title V emissions fees) based on steam production.

Periodic testing is required to be performed during winter months to hopefully capture worst-case emissions due to wetter fuel and higher steam demand. The general emission testing requirements in Permit Conditions 3.22 through 3.30 apply to all emissions testing; except, periodic visible emission testing is only required to meet 3.27 (emission unit operation), 3.29 (records during tests) and 3.30 (test reports) of the general requirements as well as the recordkeeping required in Condition 5.7.2 (note that all particulate matter testing must follow all of Condition 5.7).

Permit condition 5.9 requires routine visible emission monitoring to satisfy requirement to provide periodic monitoring to assure compliance with the visible emission limit. The frequency for each observation depends on the results of the previous observation.

Permit Condition 5.10 requires ongoing monitoring of boiler operations and multiclone pressure drop. Each of the parameters are required to be monitored (measured with a gauge indicator) continuously; however, the frequency of data recording varies. Because the permittee will base actual emissions on steam production to calculate Title V emissions fees, the permit requires continuous recording of the pounds of steam produced. Steam pressure, required to be recorded once per month, provides an indication of potential changes in boiler duty and allows an estimation of steam heat content. Boiler excess oxygen, required to be recorded once per hour, provides an indication of boiler performance with the concern that much lower oxygen levels may lead to incomplete combustion and much higher oxygen levels could cause the combustion chamber to be too cool. Pressure drop across the multiclone is generally related to control device performance (plugging or corrosion); but, is often only adequate for indicating significant changes in performance. The boiler oxygen and multiclone pressure drop readings can be useful for trouble-shooting performance problems and for tracking equipment condition trends. The permit includes a 90% data capture requirement for recordkeeping on an hourly or daily schedule – that is at least 90% percent of the data required to be measured and recorded each hour or day must be measured and recorded to comply with the permit. Data capture of less than 90% for steam production, boiler excess oxygen and multiclone pressure drop is a permit deviation. This provides relief for the more stringent monitoring/recording schedules during a given month; whereas, steam pressure must be recorded at least once each month to comply with the data capture requirement.

Based upon a visit to the facility in November 2013, EPA understands that all of the aforementioned equipment is already installed and operating.

Permit Condition 5.11 requires the permittee to install equipment to track and record those occasions when the produced gas generated by the gasifier is diverted to atmosphere via the pressure relief stack. Under normal operating conditions, the gas produced by the gasifier is combusted in the boiler and PM collected downstream in a multiclone. This doesn't happen when the gas produced by the gasifier is diverted to atmosphere, and permittee needs to know about these diversion episodes to comply with 40 CFR § 60.7(b) and 40 CFR § 63.11225(c). This permit condition also requires ELC to explain why the episode happened and what steps were taken to resolve it. With the above information having been collected and submitted to EPA for consideration pursuant to Conditions 3.47 and 3.48, EPA can determine whether BLR1 is being operated in a manner compliant with 40 CFR § 60.11(d) and 40 CFR § 63.11205(a) general duty obligations to minimize emissions.

Permit Condition 5.12 is an NSPS Dc fuel monitoring requirement. The collection of fuel monitoring data enables the permittee to document BLR1's fuel-specific annual capacity factor as that term is defined in 40 CFR § 60.41c. If BLR1's heat input capacity were greater than 30 MMBtu/hr (which it is not), the PM emission limit applicable to BLR1 would be influenced by its fuel-specific annual capacity factor. Given that the facility combusts only wood in BLR1, the permittee is eligible to record monthly (as opposed to daily) fuel usage as provided for in 40 CFR § 60.48c(g)(2).

Permit Conditions 5.13 and 5.14 are NSPS recordkeeping requirements.

Permit Section 6 – Unit-Specific Requirements – KLN (Lumber Drying Kilns)

Permit Condition 6.1 limits particulate matter emissions and describes the test method for determining compliance. The visible and fugitive emission monitoring required in Permit Conditions 4.4 through 4.10 will serve as the periodic monitoring to assure compliance for this unit.

Permit Section 7 – Unit-Specific Requirements – CYC (Wood Residue Cyclones and Target Boxes) P12, P13 and P34

Permit Condition 7.1 limits particulate matter emissions and describes the test method for determining compliance. No unit-specific testing or monitoring is required. The visible and fugitive emission monitoring required in Permit Conditions 4.4 through 4.10 will serve as the periodic monitoring to assure compliance for this unit.

Permit Section 8 – Unit-Specific Requirements – CYC (Wood Residue Cyclones and Target Boxes) P8, P9, P10, P11, P18, P19 and P20

Permit Condition 8.1 limits particulate matter emissions and describes the test method for determining compliance. No unit-specific testing or monitoring is required.

Permit condition 8.2 requires routine visible emission monitoring to satisfy requirement to provide periodic monitoring to assure compliance with the visible emission limit. The frequency for each observation depends on the results of the previous observation.

Permit Section 9 – Unit-Specific Requirements – MNFA (Miscellaneous Non-Fugitive Activities)

Permit Condition 9.1 limits particulate matter emissions and describes the test method for determining compliance. No unit-specific testing or monitoring is required. The visible and fugitive emission monitoring required in Permit Conditions 4.4 through 4.10 will serve as the periodic monitoring to assure compliance for this unit.

5. Public Participation

5.1 Public Notice and Comment

As required in 40 CFR §§ 71.11(a)(5) and 71.8, all draft operating permits must be publicly noticed and made available for public comment. The public notice of permit actions and public comment period is described in 40 CFR § 71.11(d). There is a 30 day public comment period for actions pertaining to a draft permit. For this permit action, the requirements of 40 CFR §§ 71.11(a)(5) and 71.8 have been satisfied as follows:

1. Publishing the public notice for this draft permit in a daily or weekly newspaper of general circulation in the area affected by this source. In this case, publication was provided in the daily Lewiston Tribune on May 27, 2014, and in the weekly Clearwater Progress on May 29, 2014;
2. Providing a copy of the public notice to: the permit applicant, the affected states, the air pollution control agencies of affected states, the Tribal, city and county executives, any comprehensive land use planning agency, any state or federal land manager whose lands may be affected by emissions from the source, the local emergency planning authorities which have jurisdiction over the area where the source is located and all persons who submitted a written request to be included on EPA Region 10's mailing list for Title V permitting actions;
3. Making available from May 27, 2014 through June 25, 2014 on the Region 10 public notice website [Link from <http://yosemite.epa.gov/R10/homepage.nsf/Information/R10PN/>] during the public comment period, a copy of the public notice and the draft permit and statement of basis prepared by EPA;
4. Making available from May 27, 2014 through June 25, 2014 at the Region 10 office in Seattle, Washington and at the locations listed below, a copy of the public notice, draft permit, the statement of basis, the application, and relevant supporting materials:

Lapwai Community Library
103 N. Main St.
Lapwai, Idaho 83540

Kamiah Community Library
505 S. Main Street
Kamiah, Idaho 83536

5.2 Response to Public Comments and Permit Issuance

The public comment period for this permit ran from May 27, 2014 to June 25, 2014. EPA received comments from ELC, Lewis County [Idaho] Commissioners and Ralph and Rotha Turner of Kamiah, Idaho. As required in 40 CFR § 71.11(e), EPA has considered the comments and has developed a response to each. The comments are summarized below along with a response that explains whether any change to the permit resulted and the reason why a change was or was not made. There was no public hearing requested or held. As required in 40 CFR § 71.11(i), EPA will notify the applicant and each person who has submitted comments or requested notice of the final permit decision.

Comments from ELC:

1. General – “The facility has not noticed any differences between the draft permit out for public comment and the last draft of the permit before public comment. Our comments here assume there are no such differences. We request the opportunity to discuss any differences between the draft permit out for public comment and the last pre-public comment version we received, if any such differences exist, even after the public comment period.”

EPA Response – On May 12, 2014, EPA delivered the last “pre-draft” permit to ELC via email. The email and associated “pre-draft” permit are a part of the administrative record for this permitting action. On May 13, 2014, ELC provided comments to EPA on the May 12, 2014 “pre-

draft” permit. EPA took those comments into consideration in crafting the “draft” permit that was presented to the public for comment May 27 to June 25, 2014.

There is at least one difference between the last “pre-draft” permit and the “draft” permit. Condition 4.3 of the May 12, 2014 “pre-draft” permit stated, “The permittee shall keep records showing that only wood is combusted in the boilers.” Condition 4.3 of the “draft” permit stated, “The permittee shall keep records showing that only wood is combusted in gasifiers.” This change was made after considering ELC’s May 13, 2014 comments. This may not be the only difference between the last “pre-draft” permit and the “draft” permit. The “draft” permit was created over two months ago and EPA has not performed a comparison of the “pre-draft” and “draft” documents to determine whether any additional changes were made. If any other changes were made, we suspect the changes would have been relatively insignificant in keeping with our “no surprises” practices with permit applicants.

ELC requested the opportunity to discuss with EPA any differences between the “pre-draft” and “draft” permits regardless of whether the public comment remained open to accommodate the input. EPA did not act upon ELC’s request, and ELC did not approach EPA further about the matter. EPA conducted no substantive discussions with ELC about permit content after the opening of the public comment period.

EPA has not made any changes to the permit as a result of this comment.

2. General – “This facility is in Title V only because of EPA estimates of potential VOC emissions from the facility’s lumber dry kilns. The facility has provided detailed documentation showing that facility-wide actual emissions of VOCs has never reached 40% of the Title V program threshold. The documentation associated with this Title V air operating renewal process can potentially form the basis for a New Source Review (NSR) permit application for a VOC emission limit that would remove this facility from the Title V program. As part of this process, EPA has agreed to prioritize any such NSR permit application.”

EPA Response – According to the PTE inventory EPA developed for this permitting action, the facility’s VOC PTE exceeds the Title V 100 tpy major source threshold. If the facility would like to reduce its potential VOC emissions, EPA encourages ELC to apply for a synthetic minor source permit pursuant to 40 CFR § 49.158. EPA will process ELC’s synthetic minor application based on workload priorities at the time of receipt of the application.

3. Permit Conditions 4.6 – 4.11, 5.9 and 8.2 – “In all areas where follow-up VE observations are required (including Sections 4.6 – 4.11, 5.9 and 8.2) we recommend that every mention of 10% opacity as a threshold be changed to 15%. This will continue to protect the environment and minimize public impacts while potentially keeping down follow-up VE observation costs to the facility.”

EPA Response – Permit conditions 4.4 through 4.11 constitute routine visual survey intended to address emission units from which there are normally no visible emissions. Because proposed permit conditions 4.6 through 4.11 do not mention a 10% opacity threshold, those conditions will not further be considered with respect to this comment.

Permit conditions 5.9 and 8.2 address emission units from which there are normally some visible emissions according to ELC. Permit condition 5.9 requires ELC to conduct one-hour RM9 observations of the BLR1 stack once per week if the most recent one-hour RM9 observations result in measured opacity equal to or greater than 10 percent (but less than or equal to 20 percent) for one or more 6-minute averages. Similarly, permit condition 8.2 for cyclones P8, P9, P10, P11, P18 and P19 and target box P20 requires ELC to conduct 30-minute RM9 observations once per week if the most recent 30-minute RM9 observations for the wood residue recovery device result in measured opacity equal to or greater than 10 percent (but less than or equal to 20

percent) for one or more 6-minute averages. In both cases, frequency of RM9 observations may revert back to quarterly if either (a) two consecutive weekly 30-minute RM9 observations result in no 6-minute averages equal to or greater than 10 percent, or (b) one weekly 30-minute RM9 observations result in no 6-minute averages equal to or greater than 5 percent. ELC is requesting EPA raise the threshold triggering weekly RM9 monitoring from 10% to 15% opacity for emission units subject to permit conditions 5.9 and 8.2. Permit conditions 5.9 and 8.2 were created under authority of 40 CFR §§ 71.6(a)(3)(i)(B) and (C), 71.6(a)(3)(ii) and 71.6(c)(1) and fulfill EPA's obligation to create "periodic monitoring sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the permit."⁶

In a "pre-draft" permit EPA shared with ELC on April 17, 2014, EPA initially proposed to subject all wood residue recovery devices to standard quarterly survey requirements in permit conditions 4.4 through 4.11. Upon reviewing the draft, ELC recommended to EPA on April 30, 2014 the following:

[t]hat Section 4.8, and with it the requirement for follow-up VE observations, be eliminated. Empire Lumber has shown compliance with the federal 20% opacity limit for the last 18 calendar quarters, and meets the requirements for a synthetic minor source with the requested VOC emission limit. If any follow-up VE observation provision are retained, we recommend that Section 4.8 be amended to not require any more follow-up visible emission observations if Section 4.6 or 4.8 VE observation show opacity less than 15% for every 6 minute average.

After receipt of ELC's April 30, 2014 comments, EPA began to understand that ELC wanted EPA to treat certain wood residue recovery devices differently. Rather than amend permit conditions 4.4 through 4.11, EPA chose to create a separate periodic monitoring approach for yet-to-be-identified wood residue recovery devices that regularly generate visible emissions. On May 7, 2014, EPA shared its initial ideas of what that periodic monitoring approach could look like. EPA proposed a periodic monitoring approach similar to the one already proposed for the BLR1 stack. The May 7, 2014 monitoring approach proposed by EPA for wood residue recovery devices that regularly emit visible emissions is presented as follows:

1. *Each day, observe at least one time inside bin/fuel house to determine whether material inside bin/fuel house is impeding travel of wood residue from cyclone to bin/fuel house. Record observation in log. (I suspect that making observation is not difficult for the fuel house, but may be a challenge for the elevated bins.)*
2. *Quarterly RM9.*
- 3.

<i>If the most recent visible emission measurement results in measured opacity of ...</i>	<i>Additional one-hour visible emissions measurements shall be conducted ...</i>
<i>One or more 6-minute average > 20% opacity</i>	<i>Once per day, until two consecutive daily measurements are ≤ 20%</i>
<i>One or more 6-minute average ≥ 10% opacity</i>	<i>Once per month, with consecutive tests at least 10 days apart, until three</i>

⁶ See 40 CFR § 71.6(a)(3)(i)(B).

	<i>consecutive monthly measurements are < 10%</i>
<i>All 6-minute averages < 10% opacity</i>	<i>Once per calendar quarter, with consecutive tests at least 30 days apart</i>

EPA and ELC participated in a conference call on May 8 to discuss EPA's April 17, 2014 "pre-draft" permit, ELC's April 30, 2014 comments and EPA's May 7, 2014 proposed monitoring approach for wood residue recovery devices that regularly emit visible emissions. During the conference call, ELC requested EPA increase to 15 percent the opacity threshold for triggering follow-up RM9 observations for both BLR1 and wood residue recovery devices that regularly emit visible emissions. In a subsequent May 9, 2014 email to EPA, ELC reiterated what it stated during the previous day's conference call regarding the basis for raising the threshold. ELC stated:

Empire has shown compliance for 18 consecutive quarters with federal 20% limit in permit and has actual emissions at minor source levels. EPA recommends 10%, Empire suggests splitting difference at 15%, here and for boiler and cyclone VE section.

On May 12, 2014, EPA presented to ELC a revised "pre-draft" permit reflecting changes to address ELC comments provided up to that time. The revised "pre-draft" permit reflected amendments to permit condition 5.9 and the creation of permit condition 8.2. Those conditions reflected a 10 percent opacity threshold for triggering follow-up RM9 observations for both BLR1 and wood residue recovery devices that regularly emit visible emissions. ELC reviewed the May 12, 2014 "pre-draft" permit and provided comments to EPA on May 13. ELC did not comment on permit conditions 5.9 and 8.2. Those permit conditions were carried forward unedited into the "draft" version of the permit presented to the public for comment beginning May 27.

Theoretically, periodic monitoring for the FARR 6-minute 20 percent opacity standard could be as stringent as requiring ELC to install a COMS on the exhaust of BLR1 and on the exit of each wood residue recovery device that regularly emit visible emissions. Information in the administrative record, however, does not suggest that installation and operation of a COMS on any of the facility's emission units is warranted. Although the facility has failed to comply with the FARR 6-minute 20 percent opacity standard in the past as evidenced by an EPA enforcement action, the company indicates that it has not experienced any exceedances of the opacity standard over the last 4 ½ years presumably based upon quarterly RM9 observations. Still, it remains possible for exceedances to occur. For instance, too much wood residue in a bin can cause the wood residue cyclone exit to become blocked resulting in wood residue being ejected into the atmosphere. EPA understands that the facility does not have a system to automatically shut-down the upstream operating unit when the exit to a downstream wood residue recovery device becomes blocked.

The company does not object to the requirement to conduct quarterly RM9 observations of BLR1 and wood residue recovery devices that regularly emit visible emissions. The company does not suggest that a 10 percent opacity threshold for triggering weekly follow-up RM9 observations is impractical. The company, however, does suggest that increasing the threshold to 15 percent will potentially save the company money.

In light of the foregoing, we have concluded that the record does not support an increase in the proposed follow-up RM9 observation threshold to 15 percent for BLR1 and wood residue recovery devices that regularly emit visible emissions. Based on our technical judgment and the

administrative record for this permitting action, the permit sets the follow-up RM9 observation threshold at one half the standard rather than three quarters of the standard to provide a level of assurance of compliance appropriate for these circumstances. If any quarterly 6-minute average RM9 observation is equal to or greater than 10 percent, follow-up weekly RM9 observations are required to track the emission unit's compliance until the opacity of visible emissions returns to less than 10 percent.

EPA has not made any changes to the permit as a result of this comment.

4. Permit Conditions 3.47 and 3.48 and Section 5 Recordkeeping Requirements – “Our concurrence with the draft permit that is now out for comments included a contingency that EPA help us via compliance assistance eliminate any doubt about what reporting was required. The facility intends to comply with all permit requirements. We ask only that we come to an understanding on what will be required for those reporting requirements not clearly delineated in the permit before it becomes effective, to eliminate any misunderstandings or alternative interpretations. EPA agreed to provide the requested compliance assistance. EPA precedent recommends that that compliance assistance be provided before the permit is finalized. We plan to work with EPA to come to a mutual understanding of exactly what is required to meet requirements in section 3.47 and 3.48 periodic and deviation reporting, and to verify that our current recordkeeping meets all section 5 requirements, or what enhancements might be required to get there.”

EPA Response – Whether before or after permit issuance, EPA is able to answer your questions about the requirements in the draft or final permit that this Statement of Basis may not fully explain. Shortly after permit issuance, EPA intends to schedule a meeting with ELC representatives to be held at the facility in Kamiah to review permit requirements. This is an excellent opportunity for ELC to ask questions and for EPA to explain permit requirements.

With respect to understanding what EPA expects to see in your semi-annual monitoring reports required by permit condition 3.47, we suggest you begin by reviewing the form and instructions developed by EPA and available online at <http://www.epa.gov/oaqps001/permits/p71forms.html>. The same site provides a form and instructions for submitting prompt deviation reports required by permit condition 3.48. If you still have questions after reviewing form “SIXMON” for six-month monitoring reports and form “PDR” for prompt deviation reports, please contact EPA Region 10 for further assistance.

5. General – “To further that goal of verifying permit requirements, the facility has enclosed with these comments the draft environmental regulatory calendar we’ve developed that documents routine reporting requirements. We ask for EPA’s concurrence or comments on this draft reporting calendar to support our ongoing compliance efforts.”

Empire Lumber Company

Environmental Regulatory Reporting calendar



Kamiah Mills

2014 only

2014, and less than annually thereafter

Collect data by	Circulate draft by	Due Date	Action	Data needed to complete	Agency to submit info to	Regulation Requiring this information	Responsible party
		1st quarter, preferably first half	Quarterly AQ dust/VE inspection	Kamiah dust/VE form	keep records onsite	Title V air permit section 4.6+	Chris Johnson Mike Steiger
1/10	1/15	2/28	Annual Compliance Certification	Verify the facility's compliance with permit requirements and applicable regulations throughout previous year	EPA Reg. X, with cc; to Nez Perce tribe	Title V permit section 3.49	Chris Johnson Mike Steiger

1/10	2/1	2/28	semi-annual monitoring report	verification monitoring performed, data capture, and monitoring results	EPA Reg. X, with cc; to Nez Perce tribe	Title V permit section 3.47	Chris Johnson Mike Steiger Dan Musgrave
2/1	2/15	2/28	CRTK Tier II fuels and flammables report	Fuel tank sizes and previous year's fuel consumption	ID Dept of Homeland Security, local fire marshal	US Community Right to Know Act, Tier II SARA	Chris Johnson
2/1	2/15	2/28	Annual Boiler MACT compliance certification	verify meeting boiler tune-up and operational requirements	EPA CEDRI website	Title V permit section 4.23	Chris Johnson Mike Steiger Dan Musgrave
		2nd quarter, preferably first half	Quarterly AQ dust/VE inspection	Kamiah dust/VE form	keep records onsite	Title V air permit section 4.6+	Chris Johnson Mike Steiger
5/15	6/10	7/1	CRTK Lead processed	Volume of wood planed (avail 2/15), gal diesel burnt (from 3/1), and hog fuel burnt (provided or calculated from 2/15)	EPA TRI-ME website	US Community Right to Know Act, Toxic Release inventory	Chris Johnson
		7/19/2014	Boiler MACT compliance certification	Computer form saying we performed MACT required tune-up and energy assessment	EPA CEDRI website	Title V permit section 4.22	Already done, might still need certification signature.
7/10	8/1	8/30	semi-annual monitoring report	verification monitoring performed, data capture, and monitoring results	EPA Reg. X, with cc; to Nez Perce tribe	Title V permit section 3.47	Chris Johnson Mike Steiger Dan Musgrave
		3rd quarter, preferably first half	Quarterly AQ dust/VE inspection	Kamiah dust/VE form	keep records onsite	Title V air permit section 4.6+	Chris Johnson Mike Steiger
6/15	7/1	approx 11/10	Boiler source test, in 2014 and thereafter from 1 to >4 years depending on results	Submit test plan at least 30 days in advance, Perform source test, report within 60 days	EPA, Nez Perce Tribe	Title V permit sections 5.7 and 5.8	Chris Johnson Mike Steiger Dan Musgrave
		approx 11/10/14	Monitor freq and duration of boiler release stack opening during boiler operation	Install monitor and establish recordkeeping	Records kept onsite documenting freq and duration of relief stack exhausting	Title V permit sections 5.7 and 5.8	Dan Musgrave
2/1	10/15	11/15	FARR annual Emission Inventory	2006 volumes of logs into the mill, BF planed, through kilns, and through moulder, byproduct sold, and, if available, tons fuel burnt	EPA, Tribe	Title V permit sections 3.41 - 3.45	Chris Johnson Mike Steiger Dan Musgrave
2/1	10/15	11/15	Annual Emission Calculations and Permit Fee	same as for 2/15 submission	EPA, Tribe	Title V permit section 3.46	Chris Johnson Mike Steiger Dan Musgrave
		4th quarter, preferably first half	Quarterly AQ dust/VE inspection	Kamiah dust/VE form	keep records onsite	Title V air permit section 4.6+	Chris Johnson Mike Steiger

Keep records on file onsite for at least five years

maintain at least one certified VE observer onsite, in addition to Chris Johnson on call

Intermittent Responsibilities approx. January 2019

Title V Permit Renewal application due

Permit Deviation reporting (Title V permit section 3.48)

Notify EPA within 24 hours of any opacity violation with hazardous emissions lasting 1 hour, or within 48 hours of any opacity violation lasting 2 hours
Either notification must be followed by a short report within 10 days

Follow-up VE Monitoring

Monthly follow-up VE monitoring could be required if any quarterly VE observation shows high opacity

EPA Response – With the exception of the two rows with entries associated with “CRTK,” we have reviewed the table developed by ELC and presented above. We have the following comments:

- It seems appropriate to develop a row(s) for the obligation to (a) conduct an annual fugitive emissions survey pursuant to permit condition 3.13 and (b) update the fugitive dust plan pursuant to permit condition 3.14.
- With respect to intermittent responsibilities listed below the table, follow-up VE monitoring is required to be conducted weekly, not monthly.
- With respect to submitting ongoing boiler MACT compliance certifications, it is unclear at this point whether the EPA CEDRI website will be available as a vehicle.

Comments from Lewis County [Idaho] Commissioners:

6. General – Work with ELC to renew the company’s Title V permit.

EPA Response – EPA has worked with ELC to renew the company’s Title V permit. Here is an example of EPA and the company working together. Prior to opening the public comment period, EPA solicited input from ELC on a “pre-draft” permit. As a result of the collaboration, EPA made substantive changes to the document and a “draft” permit was later presented to the public for comment. The administrative record for this permitting action includes both the “draft” permit presented to the public on May 27, 2014, and the “pre-draft” permit presented to the company on April 17, 2014, for comparison purposes.

EPA has not made any changes to the permit as a result of this comment.

Comments from Ralph and Rotha Turner of Kamiah, Idaho:

7. General – Do not renew ELC’s Title V permit. A yellow-colored dust settles on anything left outside. The yellow-colored dust is bad for our lungs.

EPA Response – A Title V permit is primarily designed to ensure that an owner or operator complies with emission limits and work practice standards that already apply to the facility. Title V permits are not generally designed to create new emission limits tailored specifically to the downwind impacts of the applicant’s emissions. Although the applicant is required to estimate its emissions as a prerequisite for obtaining the permit, the applicant is not required to estimate resultant downwind pollutant concentrations.

As indicated in Section 2.4 of this document, the Nez Perce reservation attains the national ambient air quality standard (NAAQS) for PM_{2.5}. These fine particles of 2.5 micrometers in diameter and smaller are commonly found in smoke and haze. These particles can be directly emitted from sources such as forest fires, or they can form when gases emitted from power plants, industries and automobiles react in the air.

The Kamiah area is “unclassified” for all other criteria pollutants including PM₁₀. These “inhalable coarse particles,” such as those found near roadways and dusty industries, are larger than 2.5 micrometers and smaller than 10 micrometers in diameter. An area is unclassifiable when there is insufficient monitoring data to determine compliance with the NAAQS. Presently, there is no monitoring equipment operating in the vicinity of Kamiah to determine the ambient concentration of PM₁₀.

Because the area surrounding the facility is either “unclassified” or “attainment” for all criteria pollutants, we cannot justify requiring the facility to determine its downwind impacts. If the area fails to achieve the NAAQS in the future, EPA can further investigate and impose additional requirements as necessary to bring the area back into “attainment.”

Visible dust settling off site is generally associated with a nuisance that EPA does not have the authority to regulate. The monitoring in the permit will hopefully ensure ELC closely monitors its operations and emissions, such that offsite dust is minimized.

EPA has not made any changes to the permit as a result of this comment, but we have edited Section 2.4 of the statement of basis. Section 2.4 now states:

Local Air Quality and Attainment Status: The Nez Perce Reservation is in attainment with the fine particulate (PM_{2.5}) national ambient air quality standard (NAAQS) and “unclassified” for all other criteria pollutants. An area is unclassifiable when there is insufficient monitoring data to determine compliance with the NAAQS. The Nez Perce tribe operated a regulatory PM_{2.5} monitor in Kamiah from 2005 to 2007. The 24-hour

PM_{2.5} design value for that period was 27.7 µg/m³, which is below the PM_{2.5} 24-hour NAAQS of 35 µg/m³. Also, the annual average PM_{2.5} concentration for 2005 to 2007 was 9.5 µg/m³, which was in attainment with the annual PM_{2.5} NAAQS of 15 µg/m³. In a December 22, 2008 letter to the Nez Perce tribe, EPA declared that the Nez Perce reservation attained the PM_{2.5} NAAQS. Currently, measurements taken by a non-regulatory ambient air monitor operating by the Nez Perce at the Kamiah site indicate that the area continues to attain the PM_{2.5} NAAQS.

Section 2.4 of the statement of basis previously stated:

Local Air Quality and Attainment Status: Northern Idaho, including the Nez Perce Reservation, attains the national ambient air quality standard (NAAQS) for PM_{2.5}, and is “unclassified” for all other criteria pollutants. An area is unclassifiable when there is insufficient monitoring data to determine compliance with the NAAQS. The State of Idaho operates continuous PM_{2.5} monitors at three locations near the Nez Perce Reservation, in the towns of Lewiston, Moscow, and Grangeville. The 2010-2012 24-hour PM_{2.5} design values for these monitors are, respectively, 18 micrograms per cubic meter (µg/m³), 16 µg/m³, and 14 µg/m³. These values are substantially below the 24-hour PM_{2.5} NAAQS of 35 µg/m³, and demonstrate that the surrounding area is in compliance with the PM_{2.5} NAAQS. Monitoring for PM_{2.5} is also being conducted by the Nez Perce Tribe at three locations on the Nez Perce Reservation in Kamiah, Lapwai and Reubens. Data from these monitors indicate that both the 24-hour and annual PM_{2.5} design values on the reservation are well below the PM_{2.5} NAAQS.

6. Changes to Permit Unrelated to Public Comment

EPA has made changes to the permit unrelated to public comments received. The changes are detailed below and highlighted by underlined font:

1. Table 1. In the “Emission Unit Description” entry for BLR1 in Table 1, the first sentence of the second paragraph now states:

In the permit and the statement of basis, use of the term “boiler” refers to the boiler section of this emission unit.

The sentence previously stated:

In the permit and this statement of basis, use of the term “boiler” refers to the boiler section of this emission unit.

2. Table 1. In the “Emission Unit Description” entry for KLN in Table 1, the fifth sentence now states:

The facility’s annual lumber drying capacity is limited to around 120,000 thousand board feet (mbf) given the upstream steam generating capacity and plumbing.

The sentence previously stated:

The facility’s annual lumber drying capacity is limited to around 120,000 mbf given the upstream steam generating capacity and plumbing.

3. Table 1. In the “Emission Unit Description” entry for CYC in Table 1, the second sentence now states:

Nine cyclones (P8, P9, P10, P11, P12, P13, P18, P19 and P34) and one target box (P20) employed to capture wood residue and deposit into storage structures for later sale and distribution off-site or consumption by boiler on-site.

The sentence previously stated:

Nine cyclones (P8, P9, P10, P11, P12, P13, P18, P19 and P34) and one target box (P20) employed to capture wood residue and deposit into storage structures.

4. Table 1, footnote 2. The second sentence now states:

Although CYC is considered process equipment (as opposed to APCD) for the purpose of calculating potential emissions, CYC is not considered a “process source” in the context of the Federal Air Rules for Reservations (FARR) as CYC does not cause a change in material by either chemical or physical means. See definition of “process source” at 40 CFR § 49.123.

The sentence previously stated:

Although CYC is considered process equipment (as opposed to APCD) for the purpose of calculating potential emissions, CYC is not considered a “process source” in the context of the FARR as CYC does not cause a change in material by either chemical or physical means. See definition of “process source” at 40 CFR § 49.123.

5. Condition 2.1. The second sentence now states:

The language of the cited regulation takes precedence over paraphrasing except the text of terms specified pursuant to any of the following sections is directly enforceable: section 304(f)(4) of the Federal Clean Air Act (CAA), 40 CFR §§ 71.6(a)(3)(i)(B) and (C), 71.6(a)(3)(ii), and 71.6(b), or any other term specifically identified as directly enforceable.

The sentence previously stated:

The language of the cited regulation takes precedence over paraphrasing except the text of terms specified pursuant to any of the following sections is directly enforceable: section 304(f)(4) of the Federal Clean Air Act (CAA), 40 CFR §§ 71.6(a)(3)(i)(B and C), 71.6(a)(3)(ii), and 71.6(b), or any other term specifically identified as directly enforceable.

6. Condition 2.7.4. The first sentence now states:

The permittee submitted notice of the emergency to EPA within two working days of the time when emission limitations were exceeded due to the emergency.

The sentence previously stated:

The permittee submitted notice of the emergency to EPA within 2 working days of the time when emission limitations were exceeded due to the emergency.

7. Condition 3.9.1.1. The condition now states:

All emission points are within a 70-degree viewing angle in front of the observer such that the proper sun position can be maintained for all points; and

The condition previously stated:

All emission points are within a 70-degree viewing angle in front of the observer such that the proper sun position can be maintained for all points, and

8. Condition 3.27. The first sentence now states:

Only regular operating staff may adjust the processes or emission control devices during or within two hours prior to the start of a source test.

The sentence previously stated:

Only regular operating staff may adjust the processes or emission control devices during or within 2 hours prior to the start of a source test.

9. Condition 4.15.1.3, footnote 2. The last sentence now states:

Collectively, this group is designated emission unit KLN as presented in Table 1 of this permit.

The sentence previously stated:

Collectively, this group is designated emission unit KLN as presented Table 1 of this permit.

10. Condition 4.15.3. The condition now states:

A list of the energy savings potential of the energy conservation measures identified; and

The condition previously stated:

A list of the energy savings potential of the energy conservation measures identified, and

11. Condition 4.26. The condition now states:

Where there is a reasonable possibility (as defined in 40 CFR § 52.21(r)(6)(vi)) that a project (other than projects at a source with a plantwide applicability limitation (PAL)) that is not a part of a major modification may result in a significant emissions increase of any regulated NSR pollutant and the permittee elects to use the method specified in 40 CFR § 52.21(b)(41)(ii)(a) through (c) for calculating projected actual emissions, the permittee shall perform the following:

The condition previously stated:

Where there is a reasonable possibility (as defined in 40 CFR § 52.21(r)(6)(vi)) that a project (other than projects at a source with a PAL) that is not a part of a major modification may result in a significant emissions increase of any regulated NSR pollutant and the permittee elects to use the method specified in 40 CFR § 52.21(b)(41)(ii)(a) through (c) for calculating projected actual emissions, the permittee shall perform the following:

12. Condition 5.7.2. The second sentence now states:

For monitoring devices that do not have continuous recording devices, the recorded values must consist of no fewer than three values recorded per test run.

The sentence previously stated:

For monitoring devices that do not have continuous recording devices, the recorded values must consist of no fewer than 3 values recorded per test run.

13. Condition 5.9. The second sentence now states:

The permittee shall measure visible emissions from the boiler stack within three months after this permit is issued for one hour using the procedures specified in Condition 3.9.1 and subsequently as specified in the following table.

The sentence previously stated:

The permittee shall measure visible emissions from the boiler stack within 3 months after this permit is issued for one hour using the procedures specified in Condition 3.9.1 and subsequently as specified in the following table.

14. Condition 5.10.3. The condition now states:

Boiler excess oxygen downstream of the combustion chamber (%) - continuous measurement/display, recorded at least once per day with at least 90% monthly data capture; and

The condition previously stated:

Boiler excess oxygen downstream of the combustion chamber (%) - continuous measurement/display, recorded at least once per day with at least 90% monthly data capture;

15. Condition 5.10.4. The condition now states:

Pressure drop across the multiclone (inches of water) - continuous measurement/display, recorded at least once per day with at least 90% monthly data capture.

The condition previously stated:

Pressure drop across the multiclone (inches of water) - continuous measurement/display, recorded at least once per day with at least 90% monthly data capture;

16. Condition 7.1. The condition now states:

Particulate matter emissions from the stack(s) of these emission units shall not exceed an average of 0.23 grams per dry standard cubic meter (0.1 grains per dry standard cubic foot) during any three-hour period.

The condition previously stated:

Particulate matter emissions from the stack(s) of this emission unit shall not exceed an average of 0.23 grams per dry standard cubic meter (0.1 grains per dry standard cubic foot) during any three-hour period.

17. Condition 8.1. The condition now states:

Particulate matter emissions from the stack(s) of these emission units shall not exceed an average of 0.23 grams per dry standard cubic meter (0.1 grains per dry standard cubic foot) during any three-hour period.

The condition previously stated:

Particulate matter emissions from the stack(s) of this emission unit shall not exceed an average of 0.23 grams per dry standard cubic meter (0.1 grains per dry standard cubic foot) during any three-hour period.

18. Condition 8.2. The second sentence now states:

The permittee shall measure visible emissions from the stack within three months after this permit is issued for 30 minutes using the procedures specified in Condition 3.9.1 and subsequently as specified in the following table.

The sentence previously stated:

The permittee shall measure visible emissions from the stack within 3 months after this permit is issued for 30 minutes using the procedures specified in Condition 3.9.1 and subsequently as specified in the following table.

19. Condition 9.1. The condition now states:

Particulate matter emissions from the stack(s) of these emission units shall not exceed an average of 0.23 grams per dry standard cubic meter (0.1 grains per dry standard cubic foot) during any three-hour period.

The condition previously stated:

Particulate matter emissions from the stack(s) of this emission unit shall not exceed an average of 0.23 grams per dry standard cubic meter (0.1 grains per dry standard cubic foot) during any three-hour period.

7. Abbreviations and Acronyms

Btu	British thermal units
CAA	Clean Air Act [42 U.S.C. section 7401 et seq.]
CAM	Compliance assurance monitoring
CFR	Code of Federal Regulations
CO	Carbon monoxide
COMS	Continuous opacity monitoring system
dscf	Dry standard cubic feet
EU	Emission Unit
EPA	United States Environmental Protection Agency (also U.S. EPA)
FARR	Federal Air Rules for Reservations
FR	Federal Register
gr/dscf	Grains per dry standard cubic foot (7,000 grains = 1 pound)
HAP	Hazardous air pollutant
hr	Hour
IEU	Insignificant emission unit
lb	Pound
lbm	Pound-mole
MACT	Maximum Achievable Control Technology
mm	One million
NESHAP	National Emission Standards for Hazardous Air Pollutants (40 CFR Parts 61 and 63)
NO _x	Nitrogen oxides
PM	Particulate matter
PM ₁₀	Particulate matter less than or equal to 10 microns in aerodynamic diameter
ppmdv	Parts per million on a dry, volume basis
PSD	Prevention of significant deterioration
PTE	Potential to emit
S	Sulfur

SO ₂	Sulfur dioxide
tpy	Tons per year
VOC	Volatile organic compound

Appendix A

EPA Estimation of Empire Lumber Company d.b.a. Kamiah Mills Potential Air Pollutant Emissions

Statement of Basis
Title V Operating Permit
R10T5070100

Kamiah, Idaho

Appendix A: Potential Emissions Inventory

Summary of Facility Non-HAP Potential to Emit

Non-Fugitive Emissions¹, (tons per year)

	BLR1	KLN	CYC	MNFA	MFA	PT ²	
	Biomass Gasifier & Boiler	Lumber Drying Kilns	Wood Residue Cyclones & Target Boxes	Miscellaneous Non-Fugitive Activities	Miscellaneous Fugitive Activities	Plant Traffic	Non-Fugitive Subtotal
Carbon Monoxide (CO)	78.6	0					79
Lead (Pb)	0.01	0					0
Nitrogen Oxides (NO _x)	16.5	0					17
Particulate (PM) ³	54.0	3.0	10.6	0.01			68
Respirable Particulate (PM ₁₀)	56.2	3.0	9.0	0.004			68
Fine Particulate (PM _{2.5})	56.2	3.0	5.3	0.001			64
Sulfur Dioxide (SO ₂)	9.0	0					9
Volatile Organic Compounds (VOC)	2.2	171.0	9.1				182
Greenhouse Gas (CO ₂ e) ⁴	27,675	0					27,675

Fugitive Emissions, (tons per year)

	BLR1	KLN	CYC	MNFA	MFA	PT ²	
	Biomass Gasifier & Boiler	Lumber Drying Kilns	Wood Residue Cyclones & Target Boxes	Miscellaneous Non-Fugitive Activities	Miscellaneous Fugitive Activities	Plant Traffic	Fugitive Subtotal
Carbon Monoxide (CO)							0
Lead (Pb)							0
Nitrogen Oxides (NO _x)							0
Particulate (PM) ³					0.5	not calculated	not calculated
Respirable Particulate (PM ₁₀)					0.3	not calculated	not calculated
Fine Particulate (PM _{2.5})					0.1	not calculated	not calculated
Sulfur Dioxide (SO ₂)							0
Volatile Organic Compounds (VOC)							0
Greenhouse Gas (CO ₂ e) ⁴							0

All Emissions⁵, (tons per year)

	BLR1	KLN	CYC	MNFA	MFA	PT ²	
	Biomass Gasifier & Boiler	Lumber Drying Kilns	Wood Residue Cyclones & Target Boxes	Miscellaneous Non-Fugitive Activities	Miscellaneous Fugitive Activities	Plant Traffic	Plantwide PTE
Carbon Monoxide (CO)	78.6	0	0	0	0	0	79
Lead (Pb)	0	0	0	0	0	0	0
Nitrogen Oxides (NO _x)	16.5	0	0	0	0	0	17
Particulate (PM) ³	54.0	3.0	10.6	0.01	0.5	not calculated	not calculated
Respirable Particulate (PM ₁₀)	56.2	3.0	9.0	0.004	0.3	not calculated	not calculated
Fine Particulate (PM _{2.5})	56.2	3.0	5.3	0.001	0.1	not calculated	not calculated
Sulfur Dioxide (SO ₂)	9.0	0	0	0	0	0	9
Volatile Organic Compounds (VOC)	2.2	171.0	9.1	0	0	0	182
Greenhouse Gas (CO ₂ e) ⁴	27,675	0	0	0	0	0	27,675

¹ Only non-fugitive emissions are considered for this facility in determining Title V applicability given that it is a sawmill and not one of the 27 listed source categories required to consider fugitive emissions. See definition of "major source" at 40 CFR § 71.2.

² For emission unit entitled, "PT - Plant Traffic," EPA did not calculate potential emissions.

³ PM is not a pollutant considered in determining whether a source is subject to the requirement to obtain a Title V permit, however, PM emissions are considered in determining whether a facility/project is a major PSD source/modification and whether a source is subject to CAM.

⁴ The DC Circuit Court of Appeals on July 12, 2013 vacated EPA regulations that delayed until July 21, 2014 consideration of CO₂ emissions resulting from biomass combustion in determining PSD and Title V applicability pursuant to 40 CFR 52.21(b)(49)(ii)(a) and 40 CFR 71.2 definition of "subject to regulation." See explanation for exemption provided by EPA at 76 FR 43490. See DC Circuit Court of Appeals July 12, 2013 ruling vacating the exemption at [http://www.cadc.uscourts.gov/internet/opinions.nsf/F523FF1F29C06ECA85257BA6005397B5/\\$file/11-1101-1446222.pdf](http://www.cadc.uscourts.gov/internet/opinions.nsf/F523FF1F29C06ECA85257BA6005397B5/$file/11-1101-1446222.pdf)

⁵ The "All Emissions" table sums the values in the "Non-Fugitive Emissions" and "Fugitive Emissions" tables.

Appendix A: Potential Emissions Inventory

Summary of Facility HAP Potential to Emit

Emissions, (tons per year)

Hazardous Air Pollutants	BLR1	KLN	Single HAP Plantwide Totals
	Biomass Gasifier & Boiler	Lumber Drying Kilns	
Trace Metal Compounds			
Antimony Compounds	1.03E-03		1.0E-03
Arsenic Compounds (including arsine)	2.88E-03		2.9E-03
Beryllium Compounds	1.44E-04		1.4E-04
Cadmium Compounds	5.37E-04		5.4E-04
Chromium Compounds (including hexavalent)	2.75E-03		2.8E-03
Cobalt Compounds	8.51E-04		8.5E-04
Lead Compounds (not elemental lead)	6.29E-03		6.3E-03
Manganese Compounds	2.10E-01		2.1E-01
Mercury Compounds	4.58E-04		4.6E-04
Nickel Compounds	4.32E-03		4.3E-03
Phophorus	3.54E-03		3.5E-03
Selenium Compounds	3.67E-04		3.7E-04
Other Inorganic Compounds			
Chlorine	1.03E-01		1.0E-01
Hydrochloric acid (hydrogen chloride)	2.49E+00		2.5E+00
Organic Compounds			
Acetaldehyde	1.09E-01	8.27E+00	8.4E+00
Acetophenone	4.19E-07		4.2E-07
Acrolein	5.24E-01	1.56E-01	6.8E-01
Benzene	5.50E-01		5.5E-01
Bis(2-ethylhexyl)phthalate (DEHP)	6.16E-06		6.2E-06
Carbon tetrachloride	5.89E-03		5.9E-03
Chlorobenzene	4.32E-03		4.3E-03
Chloroform	3.67E-03		3.7E-03
Dibenzofurans ¹	2.45E-07		2.4E-07
2,4-Dinitrophenol	2.36E-05		2.4E-05
Ethyl benzene	4.06E-03		4.1E-03
Ethylene dichloride (1,2-Dichloroethane)	3.80E-03		3.8E-03
Formaldehyde	5.76E-01	2.04E-01	7.8E-01
Methanol		8.90E+00	8.9E+00
Methyl bromide (Bromomethane)	1.96E-03		2.0E-03
Methyl chloride (Chloromethane)	3.01E-03		3.0E-03
Methyl chloroform (1,1,1-trichloroethane)	4.06E-03		4.1E-03
Methylene chloride (Dichloromethane)	3.80E-02		3.8E-02
Naphthalene ¹	1.27E-02		1.3E-02
4-Nitrophenol	1.44E-05		1.4E-05
Pentachlorophenol	6.68E-06		6.7E-06
Phenol	6.68E-03		6.7E-03
Polychlorinated biphenyls (PCB)	1.07E-06		1.1E-06
Polycyclic Organic Matter (POM)	1.66E-02		1.7E-02
Propionaldehyde	7.99E-03	1.08E-01	1.2E-01
Propylene dichloride (1,2-Dichloropropane)	4.32E-03		4.3E-03
Styrene	2.49E-01		2.5E-01
2,3,7,8-Tetrachlorodibenzo-p-dioxin ¹	1.13E-09		1.1E-09
Tetrachloroethylene (tetrachloroethene)	4.98E-03		5.0E-03
Toluene	1.20E-01		1.2E-01
Trichloroethylene (Trichloroethene)	3.93E-03		3.9E-03
2,4,6-Trichlorophenol	2.88E-06		2.9E-06
Vinyl chloride	2.36E-03		2.4E-03
Xylenes (inlc isomers and mixtures)	3.27E-03		3.3E-03
TOTAL ²	5.1	17.6	

Predicted Highest Plantwide Single HAP 8.9 per year, methanol
Predicted Plantwide HAP Total 22.7 tons per year, based on summing estimates

¹ designates a HAP that is subject individually to the 10 tpy major source threshold, but that is also one of several polycyclic organic matter (POM) compounds that, in aggregate, are subject to the same 10 tpy major source threshold.

² Because dibenzofurans, naphthalene and 2,3,7,8-Tetrachlorodibenzo-p-dioxin (one of several dibenzodioxins) are accounted for individually and in the calculation of POM EF, their individual contribution is discounted in the calculation of total HAP so as to avoid double-counting.

Appendix A: Potential Emissions Inventory

Non-HAP Potential to Emit

Emission Unit: **BLR1**

Description: Superior Boiler Works Mohawk 3-pass dryback scotch marine fire-tube boiler with upstream Converta Kiln wood gas generator
Induced draft boiler employing oxygen trim system

Maximum Steam Production: 20,900 lb/hr at 100 psig

Particulate Matter Control Device: Multiclone (Use of multiclone is required to comply with FARR PM limit for wood-fired boiler stacks.)

Fuel: Biomass

Commence Construction: After NSPS Dc applicability

Startup: December 1999

Design Maximum Heat Input Capacity: 29.9 MMBtu/hr

Operation: 8760 hours per year

NON-FUGITIVE EMISSIONS

Potential to Emit, (tons per year)

Pollutant Emissions	EF (lb/MMBtu)	PTE (tpy)	EF Reference
Carbon Monoxide (CO)	0.6	78.6	1 - CO Option 1 because no specific limits apply.
Lead (Pb)	0.000048	0.01	1 - Pb Option 1 because no specific limits apply.
Nitrogen Oxides (NO _x)	0.126	16.5	2 - NO _x EF is based upon site-specific test results; the 90th percentile value for three runs.
Particulate (PM)	0.412	54.0	1 - PM Option 5 because boiler is subject to FARR limit and allowed to burn bark.
Respirable Particulate (PM ₁₀)	0.429	56.2	1 - PM ₁₀ Option 5 because boiler is subject to FARR limit of 0.412 lb/MMBtu (assume all PM ₁₀) and condensable fraction is 0.017 lb/MMBtu according to AP-42.
Fine Particulate (PM _{2.5})	0.429	56.2	1 - PM _{2.5} Option 5 because boiler is subject to FARR limit of 0.412 lb/MMBtu (assume all PM _{2.5}) and condensable fraction is 0.017 lb/MMBtu according to AP-42.
Sulfur Dioxide (SO ₂)	0.069	9.0	1 - SO ₂ Option 5. Because Option 1's FARR combustion source stack 500 ppm SO ₂ emission limit is more stringent than Option 2's FARR solid fuel sulfur limit of 2% by weight (dry), Option 2 is not further considered. For Option 1, a sulfur content in the wood of 0.5% by weight (dry) would be necessary along with 100% conversion to SQ to generate 500 ppm SO ₂ concentration in the stack. Because neither are reasonable worst-case assumptions, Option 1 is not further considered. Because Option 6 is simply an average of values derived from stack test results, Option 6 is not further considered. For Options 3, 4 and 5, all assume a reasonable worst-case sulfur content in the wood of 0.2% by weight (dry). The difference between Options 3, 4 and 5 rests with the sulfur-to-SQ assumed conversion rate. Option 3 reflects 100% conversion, Option 4 represents 10% conversion and Option 5 represents 15% conversion. Option 5 represents a reasonable worst-case estimation of PTE.
Volatile Organic Compounds (VOC)	0.017	2.2	1 - VOC Option 1 because no other option available.

Greenhouse Gas Emissions (CO ₂ Equivalent)	EF (lb/MMBtu)	PTE (tpy)	EF Reference
Carbon Dioxide (CO ₂) ¹	206.8	27,083	1 - CO ₂ Option 2 because the GHG Reporting Rule (40 CFR 98) is considered the primary reference for estimating GHG emissions when preparing or processing permit applications.
Methane (CH ₄)	1.764	231	1 - CH ₄ Option 2 because the GHG Reporting Rule (40 CFR 98) is considered the primary reference for estimating GHG emissions when preparing or processing permit applications.
Nitrous Oxide (N ₂ O)	2.759	361	1 - N ₂ O Option 2 because the GHG Reporting Rule (40 CFR 98) is considered the primary reference for estimating GHG emissions when preparing or processing permit applications.
TOTAL		27,675	

¹ The DC Circuit Court of Appeals on July 12, 2013 vacated EPA regulations that delayed until July 21, 2014 consideration of CO₂ emissions resulting from biomass combustion in determining PSD and Title V applicability pursuant to 40 CFR 52.21(b)(49)(ii)(a) and 40 CFR 71.2 definition of "subject to regulation." See explanation for exemption provided by EPA at 76 FR 43490. See DC Circuit Court of Appeals July 12, 2013 ruling vacating the exemption at [http://www.cadc.uscourts.gov/internet/opinions.nsf/F523FF1F29C06ECA85257BA6005397B5/\\$file/11-1101-1446222.pdf](http://www.cadc.uscourts.gov/internet/opinions.nsf/F523FF1F29C06ECA85257BA6005397B5/$file/11-1101-1446222.pdf)

EF Reference	Description
1	EPA Region 10 Non-HAP Potential to Emit Emission Factors for Biomass Boilers Located in Pacific Northwest Indian Country, April 2014.
2	December 21, 2006 Source Evaluation Report. Project No. 2709. Horizon Engineering, LLC. Kamiah Mills. Kamiah, Idaho. Wood Gasification Burner/Boiler System (B-1). Particulate Matter, CO, NO _x , SO ₂ and opacity testing conducted November 8, 2006. Only NO _x test results employed to determine PTE. Because test conducted while burning dry wood (not worst-case fuel for CO), results not employed to determine CO PTE. Although SQ not detected during test, this does not represent reasonable worst-case emissions. Because the facility employs a multiclone to reduce PM emissions to comply with an applicable emission limit, the limit is employed to determine PTE.

Appendix A: Potential Emissions Inventory

Non-HAP Potential to Emit

Emission Unit: **KLN**

Description: Lumber drying employing five Wellons double-track kilns

Control Device: None

Work Practice: Company indicates that it is incapable of drying lumber for a sustained period of time at dry bulb temperature greater than 200°F.

Fuel: None - indirect steam provided by boiler BLR1

Predominant Species Dried: Cedar, Douglas Fir, Idaho White Pine, Larch, Lodgepole Pine, Ponderosa Pine, Spruce and White Fir

Installed: Kilns P14, P15 and P16 installed circa Fall 2005 to Spring 2006. Kilns P31 and P32 began operating April 23, 2012.

Annual Capacity: 120,000 mbf/yr

NON-FUGITIVE EMISSIONS

Potential to Emit, (tons per year)

Pollutant Emissions	EF (lb/mbf)	PTE (tpy)	EF Reference
Carbon Monoxide (CO)	0	0	
Lead (Pb)	0	0	
Nitrogen Oxides (NO _x)	0	0	
Particulate (PM)	0.05	3.0	1 - Because the facility has the ability to dry both resinous and non-resinous softwood species select the higher of the two EF to determine PTE. The non-resinous softwood EF is higher.
Respirable Particulate (PM ₁₀)	0.05	3.0	1 - Because the facility has the ability to dry both resinous and non-resinous softwood species select the higher of the two EF to determine PTE. The non-resinous softwood EF is higher.
Fine Particulate (PM _{2.5})	0.05	3.0	1 - Because the facility has the ability to dry both resinous and non-resinous softwood species select the higher of the two EF to determine PTE. The non-resinous softwood EF is higher.
Sulfur Dioxide (SO ₂)	0	0	
Volatile Organic Compounds (VOC)	2.8505	171.0	2 - Because the facility has the ability to dry resinous and non-resinous softwood species but only at temperatures less than or equal to 200°F, select the highest WPP1 VOC EF from among all softwood species for drying at 200°F. The Western White Pine EF is highest.

Greenhouse Gas Emissions (CO ₂ Equivalent)	EF (lb/mbf)	PTE (tpy)	EF Reference
Carbon Dioxide (CO ₂)	0	0	
Methane (CH ₄)	0	0	
Nitrous Oxide (N ₂ O)	0	0	
TOTAL	0	0	

EF Reference	Description
1	EPA Region 10 Particulate Matter Potential to Emit Emission Factors for Activities at Sawmills, Excluding Boilers, Located in Pacific Northwest Indian Country, April 2014.
2	EPA Region 10 HAP and VOC Emission Factors for Lumber Drying, December 2012.

Appendix A: Potential Emissions Inventory

Non-HAP Potential to Emit

Emission Unit: **CYC**

Description: Nine wood residue cyclones and one target box

NON-FUGITIVE EMISSIONS

Potential to Emit, (tons per year)

Emissions Generating Activity ¹	Annual Capacity (bdt/yr)	EF				PTE			
		PM	PM ₁₀	PM _{2.5}	VOC	PM	PM ₁₀	PM _{2.5}	VOC
		(lb/bdt)				(tpy)			
P8	3,342	0.5	0.425	0.25	0.4283	0.8	0.7	0.4	0.7
P9	2,228	0.5	0.425	0.25	0.4283	0.6	0.5	0.3	0.5
P10	13,063	0.5	0.425	0.25	0.4283	3.3	2.8	1.6	2.8
P11	8,709	0.5	0.425	0.25	0.4283	2.2	1.9	1.1	1.9
P12	11,410	0.5	0.425	0.25	0.4283	2.9	2.4	1.4	2.4
P13	2,007	0.5	0.425	0.25	0.4283	0.5	0.4	0.3	0.4
P18 ²	6,528	0	0	0	0	0	0	0	0
P19	1,671	0.5	0.425	0.25	0.4283	0.4	0.4	0.2	0.4
P20	3	1	0.085	0.05	0.4283	0.0015	0.0001	0.0001	0.0006
P34 ²	5,468	0	0	0	0	0.0	0.0	0.0	0.0
TOTAL						10.6	9.0	5.3	9.1

PM, PM₁₀ and PM_{2.5} EF Reference: EPA Region 10 Particulate Matter Potential to Emit Emission Factors for Activities at Sawmills, Excluding Boilers, Located in Pacific Northwest Indian Country, April 2014

NCASI Technical Bulletin No. 723 entitled, "Laboratory and Limited Field Measurements of VOC Emissions from Wood Residuals," September 1996. Assume processing of ponderosa pine logs harvested during season resulting in highest emissions. To convert NCASI emission factor from units of carbon to units of propane (estimate of VOC emitted), multiply by propane mass conversation factor of 1.2238. For further explanation for expressing emissions as propane, see Interim VOC Measurement Protocol for the Wood Products Industry - July 2007. See also Appendix C of NCASI's Technical Bulletin No. 991 entitled, "Characterization, Measurement, and Reporting of Volatile Organic Compounds Emitted from Southern Pine Wood Products Sources," September 2011. For ponderosa pine chips, (0.35 lb C/bdt) X 1.2238 = 0.4283 lb VOC (as propane)/bdt. In the absence of emissions testing data for either ponderosa pine sawdust or shavings, assume emission factor for ponderosa pine chips. The actual sawdust and shavings emission factor is likely higher than chip-derived estimate based upon comparative emissions testing data for douglas fir.

VOC EF Reference:

Annual Capacity Reference: November 4, 2013 email from ELC (consultant Chris Johnson) to EPA Region 10 (Dan Meyer)

¹ Glossary of Emissions Generating Activity

P1 - Planer No. 1 processing dry lumber. Shavings pneumatically evacuated to P10 or P11.
P2 - Planer No. 2 processing dry lumber. Shavings pneumatically evacuated to P8 or P9.
P3 - Trimmer processing planed dry lumber. Sawdust pneumatically evacuated to P13. Trim ends mechanically conveyed to P6.
P4 - Moulder processing planed and trimmed dry lumber. Sawdust pneumatically evacuated to P13.
P6 - Big hog processing trim ends from dry lumber. Wood residue pneumatically evacuated to P12.
P7 - Rip saw processing dry lumber. Sawdust pneumatically evacuated to P13. Edgings mechanically conveyed to P21.
P8 - Cyclone No. 1. Equipment to capture P2 shavings and deposit (a) directly into ST2B or (b) indirectly into ST2C via P17B and P19.
P9 - Cyclone No. 2. Equipment to capture P2 shavings and deposit into ST3.
P10 - Cyclone No. 3 (four-plex cyclone). Equipment to capture (a) P1 shavings, (b) P6 hogged trim ends collected by P12 and (c) P21 hogged edgings collected by P13. Captured material deposited (a) directly into ST2A or (b) indirectly into ST2C via P17A and P18.
P11 - Cyclone No. 4. Equipment to capture (a) P1 shavings, (b) P6 hogged trim ends collected by P12 and (c) P21 hogged edgings collected by P13. Captured material deposited into ST3.
P12 - Cyclone No. 5. Equipment to capture P6 hogged trim ends. Captured material pneumatically conveyed to either P10 or P11.
P13 - Cyclone No. 6. Equipment to capture (a) P21 hogged edgings, (b) P7 sawdust, (c) P3 sawdust and (d) P4 sawdust. Captured material pneumatically conveyed to either P10 or P11.
P17A - Schutte hog A processing wood residue collected by P10. Wood residue pneumatically evacuated to P18.
P17B - Schutte hog B processing wood residue collected by P8. Wood residue pneumatically evacuated to P19.
P18 - Cyclone No. 7. Equipment to capture P17A hogged wood residue and deposit into ST2C. P18 exhaust is ducted to P20; not to atmosphere. Therefore, P18 emissions are 0.
P19 - Cyclone No. 8. Equipment to capture P17B hogged wood residue and deposit into ST2C.
P20 - Target Box. Equipment to capture P18 exhaust.
P21 - New little hog processing edgings from dry lumber. Wood residue pneumatically evacuated to P13.
P33 - New small Schutte hog processing wood residue from dry lumber. Wood residue pneumatically evacuated to P34.
P34 - Cyclone No. 9. Equipment to capture P33 hogged wood residue and deposit onto conveyor belt mechanically conveying wood residue from ST3 to ST4. P34 exhaust is ducted to ST3; not to atmosphere. Therefore, P34 emissions are 0.
ST2A - Fuel Bin No. 1
ST2B - Fuel Bin No. 3
ST2C - Fuel Bin No. 2
ST3 - Indoor Fuel House
ST4 - Round Fuel Bin
TR1 - Transfer of wood residue from ST2A, ST2B and ST2C into trucks for sale
TR2 - Transfer of wood residue from ST2A, ST2B and ST2C into loader or truck to supply ST4
TR3 - Transfer of wood residue from loader or truck onto conveyor supplying ST4
TR4 - Transfer of wood residue from yard onto conveyor supplying P6
TR5 - Transfer of purchased wood residue from truck onto conveyor supplying ST4
TR6 - Transfer of wood residue from ST3 to conveyor supplying ST4
TR7 - Transfer of captured wood residue from P34 onto conveyor belt supplying ST4
TR8 - Transfer of wood residue from P34 exhaust into ST3
TR9 - Transfer of captured wood residue from P9 into ST3
TR10 - Transfer of captured wood residue from P11 into ST3
TR11 - Transfer of ash from BLR1 muliclone into hopper

² Because cyclone exhaust is not directed to atmosphere, emissions are assumed to be 0.

Appendix A: Potential Emissions Inventory

Non-HAP Potential to Emit

Emission Unit: **MNFA**

Description: Miscellaneous Non-Fugitive Activities

NON-FUGITIVE EMISSIONS

Potential to Emit, (tons per year)

Emissions Generating Activity ¹	Annual Capacity	EF			PTE		
		PM	PM ₁₀	PM _{2.5}	PM	PM ₁₀	PM _{2.5}
		(lb/ton log, lb/bdt or lb/mbf; as applicable)			(tpy)		
P1 ²	59,672 bdt/yr	0	0	0	0	0	0
P2 ²	39,781 bdt/yr	0	0	0	0	0	0
P3 ³	87,177 bdt/yr	0	0	0	0	0	0
P4 ²	1,939 bdt/yr	0	0	0	0	0	0
P6 ²	11,410 bdt/yr	0	0	0	0	0	0
TR8	820 bdt/yr	0.0015	0.0007	0.0001	0.001	0.0003	0.00004
TR9	2,228 bdt/yr	0.0015	0.0007	0.0001	0.002	0.001	0.0001
TR10	8,709 bdt/yr	0.0015	0.0007	0.0001	0.007	0.003	0.0004
TR11	20 bdt/yr	0.0015	0.0007	0.0001	0.00002	0.00001	0.000001
TOTAL					0.01	0.004	0.001

EF Reference: EPA Region 10 Particulate Matter Potential to Emit Emission Factors for Activities at Sawmills, Excluding Boilers, Located in Pacific Northwest Indian Country, April 2014

Annual Capacity Reference: November 4, 2013 email from ELC (consultant Chris Johnson) to EPA Region 10 (Dan Meyer)

¹ Glossary of Emissions Generating Activity

P1 - Planer No. 1 processing dry lumber. Shavings pneumatically evacuated to P10 or P11.
P2 - Planer No. 2 processing dry lumber. Shavings pneumatically evacuated to P8 or P9.
P3 - Trimmer processing planed dry lumber. Sawdust pneumatically evacuated to P13. Trim ends mechanically conveyed to P6.
P4 - Moulder processing planed and trimmed dry lumber. Sawdust pneumatically evacuated to P13.
P6 - Big hog processing trim ends from dry lumber. Wood residue pneumatically evacuated to P12.
P7 - Rip saw processing dry lumber. Sawdust pneumatically evacuated to P13. Edgings mechanically conveyed to P21.
P8 - Cyclone No. 1. Equipment to capture P2 shavings and deposit (a) directly into ST2B or (b) indirectly into ST2C via P17B and P19.
P9 - Cyclone No. 2. Equipment to capture P2 shavings and deposit into ST3.
P10 - Cyclone No. 3 (four-plex cyclone). Equipment to capture (a) P1 shavings, (b) P6 hogged trim ends collected by P12 and (c) P21 hogged edgings collected by P13. Captured material deposited (a) directly into ST2A or (b) indirectly into ST2C via P17A and P18.
P11 - Cyclone No. 4. Equipment to capture (a) P1 shavings, (b) P6 hogged trim ends collected by P12 and (c) P21 hogged edgings collected by P13. Captured material deposited into ST3.
P12 - Cyclone No. 5. Equipment to capture P6 hogged trim ends. Captured material pneumatically conveyed to either P10 or P11.
P13 - Cyclone No. 6. Equipment to capture (a) P21 hogged edgings, (b) P7 sawdust, (c) P3 sawdust and (d) P4 sawdust. Captured material pneumatically conveyed to either P10 or P11.
P17A - Schutte hog A processing wood residue collected by P10. Wood residue pneumatically evacuated to P18.
P17B - Schutte hog B processing wood residue collected by P8. Wood residue pneumatically evacuated to P19.
P18 - Cyclone No. 7. Equipment to capture P17A hogged wood residue and deposit into ST2C. P18 exhaust is ducted to P20; not to atmosphere. Therefore, P18 emissions are 0.
P19 - Cyclone No. 8. Equipment to capture P17B hogged wood residue and deposit into ST2C.
P20 - Target Box. Equipment to capture P18 exhaust.
P21 - New little hog processing edgings from dry lumber. Wood residue pneumatically evacuated to P13.
P33 - New small Schutte hog processing wood residue from dry lumber. Wood residue pneumatically evacuated to P34.
P34 - Cyclone No. 9. Equipment to capture P33 hogged wood residue and deposit onto conveyor belt mechanically conveying wood residue from ST3 to ST4. P34 exhaust is ducted to ST3; not to atmosphere. Therefore, P34 emissions are 0.
ST2A - Fuel Bin No. 1
ST2B - Fuel Bin No. 3
ST2C - Fuel Bin No. 2
ST3 - Indoor Fuel House
ST4 - Round Fuel Bin
TR1 - Transfer of wood residue from ST2A, ST2B and ST2C into trucks for sale
TR2 - Transfer of wood residue from ST2A, ST2B and ST2C into loader or truck to supply ST4
TR3 - Transfer of wood residue from loader or truck onto conveyor supplying ST4
TR4 - Transfer of wood residue from yard onto conveyor supplying P6
TR5 - Transfer of purchased wood residue from truck onto conveyor supplying ST4
TR6 - Transfer of wood residue from ST3 to conveyor supplying ST4
TR7 - Transfer of captured wood residue from P34 onto conveyor belt supplying ST4
TR8 - Transfer of wood residue from P34 exhaust into ST3
TR9 - Transfer of captured wood residue from P9 into ST3
TR10 - Transfer of captured wood residue from P11 into ST3
TR11 - Transfer of ash from BLR1 muliclone into hopper

² Because wood residue pneumatically evacuated to cyclone, emissions are assumed to be 0 at point of generation.

³ Because wood residue pneumatically evacuated to cyclone and material drop occurring inside a building, emissions are assumed to be 0 at point of generation.

Appendix A: Potential Emissions Inventory

Non-HAP Potential to Emit

Emission Unit: **MFA**

Description: Miscellaneous Fugitive Activities

FUGITIVE EMISSIONS

Potential to Emit, (tons per year)

Emissions Generating Activity ¹	Annual Capacity		EF			PTE		
			PM	PM ₁₀	PM _{2.5}	PM	PM ₁₀	PM _{2.5}
			(lb/ton log or lb/bdt; as applicable)			(tpy)		
P7	2,921	bdt/yr	0.35	0.175	0.0875	0.5	0.3	0.1
P17A ²	6,528	bdt/yr	0	0	0	0	0	0
P17B ²	1,671	bdt/yr	0	0	0	0	0	0
P21 ²	350	bdt/yr	0	0	0	0	0	0
P33 ²	5,468	bdt/yr	0	0	0	0	0	0
TR1	12,332	bdt/yr	0.0015	0.0007	0.0001	0.01	0.004	0.001
TR2	2,399	bdt/yr	0.0015	0.0007	0.0001	0.002	0.001	0.0001
TR3	2,399	bdt/yr	0.0015	0.0007	0.0001	0.002	0.001	0.0001
TR4	4,000	bdt/yr	0.0015	0.0007	0.0001	0.003	0.001	0.0002
TR5	2,000	bdt/yr	0.0015	0.0007	0.0001	0.002	0.001	0.0001
TR6	10,937	bdt/yr	0.0015	0.0007	0.0001	0.01	0.00	0.001
TR7	5,468	bdt/yr	0.0015	0.0007	0.0001	0.004	0.002	0.0003
TOTAL						0.5	0.3	0.1

EF Reference: EPA Region 10 Particulate Matter Potential to Emit Emission Factors for Activities at Sawmills, Excluding Boilers, Located in Pacific Northwest Indian Country, April 2014

Annual Capacity Reference: November 4, 2013 email from ELC (consultant Chris Johnson) to EPA Region 10 (Dan Meyer)

¹ Glossary of Emissions Generating Activity

P1 - Planer No. 1 processing dry lumber. Shavings pneumatically evacuated to P10 or P11.
P2 - Planer No. 2 processing dry lumber. Shavings pneumatically evacuated to P8 or P9.
P3 - Trimmer processing planed dry lumber. Sawdust pneumatically evacuated to P13. Trim ends mechanically conveyed to P6.
P4 - Moulder processing planed and trimmed dry lumber. Sawdust pneumatically evacuated to P13.
P6 - Big hog processing trim ends from dry lumber. Wood residue pneumatically evacuated to P12.
P7 - Rip saw processing dry lumber. Sawdust pneumatically evacuated to P13. Edgings mechanically conveyed to P21.
P8 - Cyclone No. 1. Equipment to capture P2 shavings and deposit (a) directly into ST2B or (b) indirectly into ST2C via P17B and P19.
P9 - Cyclone No. 2. Equipment to capture P2 shavings and deposit into ST3.
P10 - Cyclone No. 3 (four-plex cyclone). Equipment to capture (a) P1 shavings, (b) P6 hogged trim ends collected by P12 and (c) P21 hogged edgings collected by P13. Captured material deposited (a) directly into ST2A or (b) indirectly into ST2C via P17A and P18.
P11 - Cyclone No. 4. Equipment to capture (a) P1 shavings, (b) P6 hogged trim ends collected by P12 and (c) P21 hogged edgings collected by P13. Captured material deposited into ST3.
P12 - Cyclone No. 5. Equipment to capture P6 hogged trim ends. Captured material pneumatically conveyed to either P10 or P11.
P13 - Cyclone No. 6. Equipment to capture (a) P21 hogged edgings, (b) P7 sawdust, (c) P3 sawdust and (d) P4 sawdust. Captured material pneumatically conveyed to either P10 or P11.
P17A - Schutte hog A processing wood residue collected by P10. Wood residue pneumatically evacuated to P18.
P17B - Schutte hog B processing wood residue collected by P8. Wood residue pneumatically evacuated to P19.
P18 - Cyclone No. 7. Equipment to capture P17A hogged wood residue and deposit into ST2C. P18 exhaust is ducted to P20; not to atmosphere. Therefore, P18 emissions are 0.
P19 - Cyclone No. 8. Equipment to capture P17B hogged wood residue and deposit into ST2C.
P20 - Target Box. Equipment to capture P18 exhaust.
P21 - New little hog processing edgings from dry lumber. Wood residue pneumatically evacuated to P13.
P33 - New small Schutte hog processing wood residue from dry lumber. Wood residue pneumatically evacuated to P34.
P34 - Cyclone No. 9. Equipment to capture P33 hogged wood residue and deposit onto conveyor belt mechanically conveying wood residue from ST3 to ST4. P34 exhaust is ducted to ST3; not to atmosphere. Therefore, P34 emissions are 0.
ST2A - Fuel Bin No. 1
ST2B - Fuel Bin No. 3
ST2C - Fuel Bin No. 2
ST3 - Indoor Fuel House
ST4 - Round Fuel Bin
TR1 - Transfer of wood residue from ST2A, ST2B and ST2C into trucks for sale
TR2 - Transfer of wood residue from ST2A, ST2B and ST2C into loader or truck to supply ST4
TR3 - Transfer of wood residue from loader or truck onto conveyor supplying ST4
TR4 - Transfer of wood residue from yard onto conveyor supplying P6
TR5 - Transfer of purchased wood residue from truck onto conveyor supplying ST4
TR6 - Transfer of wood residue from ST3 to conveyor supplying ST4
TR7 - Transfer of captured wood residue from P34 onto conveyor belt supplying ST4
TR8 - Transfer of wood residue from P34 exhaust into ST3
TR9 - Transfer of captured wood residue from P9 into ST3
TR10 - Transfer of captured wood residue from P11 into ST3
TR11 - Transfer of ash from BLR1 muliclone into hopper

² Because wood residue pneumatically evacuated to cyclone, emissions are assumed to be 0 at point of generation.

Appendix A: Potential Emissions Inventory

HAP Potential to Emit

Emission Unit: **BLR1**

Description: Superior 3-pass scotch marine fire-tube boiler with upstream Converta Kiln wood gas generator
Induced draft boiler employing oxygen trim system

Maximum Steam Production: 20,900 lb/hr at 100 psig

Particulate Matter Control Device: Multiclone (Use of multiclone is required to comply with FARR PM limit for wood-fired boiler stacks.)

Fuel: Biomass

Commence Construction: After NSPS Dc applicability

Startup: December 1999

Design Maximum Heat Input Capacity: 29.9 MMBtu/hr
Operation: 8760 hours per year

Potential to Emit, (tons per year)

Hazardous Air Pollutants	EF (lb/MMBtu)	PTE (tpy)
Trace Metal Compounds		
Antimony Compounds	7.90E-06	1.03E-03
Arsenic Compounds (including arsine)	2.20E-05	2.88E-03
Beryllium Compounds	1.10E-06	1.44E-04
Cadmium Compounds	4.10E-06	5.37E-04
Chromium Compounds (including hexavalent)	2.10E-05	2.75E-03
Cobalt Compounds	6.50E-06	8.51E-04
Lead Compounds (not elemental lead)	4.80E-05	6.29E-03
Manganese Compounds	1.60E-03	2.10E-01
Mercury Compounds	3.50E-06	4.58E-04
Nickel Compounds	3.30E-05	4.32E-03
Phosphorus	2.70E-05	3.54E-03
Selenium Compounds	2.80E-06	3.67E-04
Other Inorganic Compounds		
Chlorine	7.90E-04	1.03E-01
Hydrochloric acid (hydrogen chloride)	1.90E-02	2.49E+00
Organic Compounds		
Acetaldehyde	8.30E-04	1.09E-01
Acetophenone	3.20E-09	4.19E-07
Acrolein	4.00E-03	5.24E-01
Benzene	4.20E-03	5.50E-01
Bis(2-ethylhexyl)phthalate (DEHP)	4.70E-08	6.16E-06
Carbon tetrachloride	4.50E-05	5.89E-03
Chlorobenzene	3.30E-05	4.32E-03
Chloroform	2.80E-05	3.67E-03
Dibenzofurans ¹	1.87E-09	2.45E-07
2,4-Dinitrophenol	1.80E-07	2.36E-05
Ethyl benzene	3.10E-05	4.06E-03
Ethylene dichloride (1,2-Dichloroethane)	2.90E-05	3.80E-03
Formaldehyde	4.40E-03	5.76E-01
Methyl bromide (Bromomethane)	1.50E-05	1.96E-03
Methyl chloride (Chloromethane)	2.30E-05	3.01E-03
Methyl chloroform (1,1,1-trichloroethane)	3.10E-05	4.06E-03
Methylene chloride (Dichloromethane)	2.90E-04	3.80E-02
Naphthalene ¹	9.70E-05	1.27E-02
4-Nitrophenol	1.10E-07	1.44E-05
Pentachlorophenol	5.10E-08	6.68E-06
Phenol	5.10E-05	6.68E-03
Polychlorinated biphenyls (PCB)	8.15E-09	1.07E-06
Polycyclic Organic Matter (POM)	1.27E-04	1.66E-02
Propionaldehyde	6.10E-05	7.99E-03
Propylene dichloride (1,2-Dichloropropane)	3.30E-05	4.32E-03
Styrene	1.90E-03	2.49E-01
2,3,7,8-Tetrachlorodibenzo-p-dioxin ¹	8.60E-12	1.13E-09
Tetrachloroethylene (tetrachloroethene)	3.80E-05	4.98E-03
Toluene	9.20E-04	1.20E-01
Trichloroethylene (Trichloroethene)	3.00E-05	3.93E-03
2,4,6-Trichlorophenol	2.20E-08	2.88E-06
Vinyl chloride	1.80E-05	2.36E-03
Xylenes (incl isomers and mixtures)	2.50E-05	3.27E-03
TOTAL ²	3.87E-02	5.1
TOTAL w/o HCl	1.97E-02	2.6

¹ designates a HAP that is subject individually to the 10 tpy major source threshold, but that is also one of several polycyclic organic matter (POM) compounds that, in aggregate, are subject to the same 10 tpy major source threshold.

² Because dibenzofurans, naphthalene and 2,3,7,8-Tetrachlorodibenzo-p-dioxin (one of several dibenzodioxins) are accounted for individually and in the calculation of POM EF, their individual contribution is discounted in the calculation of total HAP so as to avoid double-counting.

EF Reference: EPA Region 10 HAP Potential to Emit Emission Factors for Biomass Boilers Located in Pacific Northwest Indian Country, April 2014.
Because the boiler is not subject to NESHAP DDDDD, employ default AP-42 emission factors for all pollutants.

Appendix A: Potential Emissions Inventory

HAP Potential to Emit

Emission Unit: **KLN**

Description: Lumber drying employing five Wellons double-track kilns

Control Device: None

Work Practice: Company indicates that it is incapable of drying lumber for a sustained period of time at dry bulb temperature greater than 200°F.

Fuel: None - indirect steam provided by boiler BLR1

Predominant Species Dried: Cedar, Douglas Fir, Idaho White Pine, Larch, Lodgepole Pine, Ponderosa Pine, Spruce and White Fir

Installed: Kilns P14, P15 and P16 installed circa Fall 2005 to Spring 2006. Kilns P31 and P32 began operating April 23, 2012.

Annual Capacity: 120,000 mbf/yr

Potential to Emit, (tons per year)

Hazardous Air Pollutants	EF (lb/mbf)	PTE (tpy)
Methanol	0.1484	8.9
Formaldehyde	0.0034	0.2
Acetaldehyde	0.1378	8.3
Propionaldehyde	0.0018	0.1
Acrolein	0.0026	0.2
TOTAL		17.6

EF Reference: EPA Region 10 HAP and VOC Emission Factors for Lumber Drying, December 2012. Because the facility has the ability to dry resinous and non-resinous softwood species but only at temperatures less than or equal to 200°F, select the highest EF from among all softwood species for drying at 200°F. See EF for drying western red cedar.